Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P. O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH # _____

Project Title: Grading Permit GRADE19-0054 (Pit River Tribe)

Lead Agency: Shasta County Department of Resource Management – Planning Division Contact Person: Tara Petti, Associate Planner

Mailing Address: 1855 Placer Street, Suite 103 Phone: (530) 225-5532

City: Redding, CA Zip: 96001 County: Shasta

Project Location: County: Shasta City/Nearest Community: Montgomery Creek

Cross Streets: Hwy 299, Hardin Road and Windy Point Road Zip Code: 96065

Lat. / Long.: 1937575.78' N / 14830833.48' W Total Acres: 3.9

Assessor's Parcel No.: 029-520-004,029-520-005-000, 029-520-006-000,029-530-011-000,029-530-012-000,029-530-013-000,029-530-014-000

Section: 1 Twp.: 34N Range: 11W Base: MDB&M

Within 2 Miles: State Hwy #: 299 Airports: N/A Railways: N/A Waterways: Tributary to Willow Creek

Schools: Mountain Union School District, Shasta Union High School District

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Document Type:

CEQA:
- ☐ NOP
- ☐ Early Cons
- ☐ Neg Dec
- ☒ Mit Neg Dec
- ☐ Draft EIR
- ☐ Supplement/Subsequent EIR (Prior SCH No.) _____
- Other _____

NEPA:
- ☐ NOI
- ☐ EA
- ☐ Draft EIS
- ☐ FONSI

Other:
- ☐ Joint Document
- ☐ Final Document
- ☐ Other _____

Local Action Type:

- ☐ General Plan Update
- ☐ General Plan Amendment
- ☐ General Plan Element
- ☐ Community Plan
- ☐ Specific Plan
- ☐ Master Plan
- ☐ Planned Unit Development
- ☐ Site Plan
- ☐ Rezone
- ☐ Prezone
- ☐ Use Permit
- ☐ Land Division (Subdivision, etc.)
- ☐ Annexation
- ☐ Redevelopment
- ☐ Coastal Permit
- ☒ Other Grading

Development Type:

- ☐ Residential: Units _____ Acres _____
- ☐ Office: Sq.ft. _____ Acres _____ Employees _____
- ☐ Commercial: Sq.ft _____ Acres _____ Employees _____
- ☐ Industrial: Sq.ft. _____ Acres _____ Employees _____
- ☐ Educational _____
- ☐ Recreational _____
- ☐ Water Facilities: Type _____ MGD _____
- ☒ Transportation: Type road reconstruction/widening/extension
- ☐ Mining: Mineral _____
- ☐ Power: Type _____ MW _____
- ☐ Waste Treatment: Type _____ MGD _____
- ☐ Hazardous Waste: Type _____
- ☐ Other: _____

Project Issues Discussed in Document:

- ☐ Aesthetic/Visual
- ☐ Agricultural Land
- ☒ Air Quality
- ☒ Archeological/Historical
- ☒ Biological Resources
- ☐ Coastal Zone
- ☐ Drainage/Absorption
- ☐ Economic/Jobs
- ☐ Flood Plain/Flooding
- ☐ Forest Land/Fire Hazard
- ☐ Geologic/Seismic
- ☐ Greenhouse Gas Emissions
- ☐ Minerals
- ☒ Noise
- ☐ Population/Housing Balance
- ☐ Public Services/Facilities
- ☐ Recreation/Parks
- ☐ Schools/Universities
- ☐ Septic Systems
- ☐ Sewer Capacity
- ☐ Soil Erosion/Compaction/Grading
- ☐ Solid Waste
- ☒ Toxic/Hazardous
- ☒ Traffic/Circulation
- ☐ Vegetation
- ☒ Water Quality
- ☐ Water Supply/Groundwater
- ☐ Wetland/Riparian
- ☒ Wildlife
- ☐ Growth Inducing
- ☐ Land Use
- ☐ Cumulative Effects
- ☐ Other _____

Present Land Use/Zoning/General Plan Designation:

The project site is located on existing roadways adjacent to Limited Residential zoning (R-L), Limited Residential zoning combined with Mobile Home (T) and Building Area-10 Acres (BA-10), and Unclassified zoning (U). The General Plan land use designation is Rural Residential A (RA).

Project Description: *(please use a separate page if necessary)*

The proposed project includes the extension of Hardin Road for approximately 1,100 linear feet (LF) and reconstruction of approximately 2,750 LF of an existing segment of Hardin Road to improve connectivity to Windy Point Road (a Tribal road) and to

State Route 299 (SR-299). In addition to the Hardin Road portion of the project, the proposed project would require the widening of approximately 1,300 LF of SR-299 to accommodate the construction of a new left turn lane onto Hardin Road. The proposed project also includes the construction of road appurtenances such as roadside drainage ditches, culverts, signs, and other required devices.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

____	Air Resources Board	____	Office of Emergency Services
____	Boating & Waterways, Department of	____	Office of Historic Preservation
____	California Highway Patrol	____	Office of Public School Construction
____	CalFire	____	Parks & Recreation
S	Caltrans District # 2	____	Pesticide Regulation, Department of
____	Caltrans Division of Aeronautics	____	Public Utilities Commission
____	Caltrans Planning (Headquarters)	S	Regional WQCB # 5
____	Central Valley Flood Protection Board	____	Resources Agency
____	Coachella Valley Mountains Conservancy	____	S.F. Bay Conservation & Development Commission
____	Coastal Commission	____	San Gabriel & Lower L.A. Rivers and Mtns Conservancy
____	Colorado River Board	____	San Joaquin River Conservancy
____	Conservation, Department of	____	Santa Monica Mountains Conservancy
____	Corrections, Department of	____	State Lands Commission
____	Delta Protection Commission	____	SWRCB: Clean Water Grants
____	Education, Department of	____	SWRCB: Water Quality
____	Energy Commission	____	SWRCB: Water Rights
S	Fish & Game Region # 1	____	Tahoe Regional Planning Agency
____	Food & Agriculture, Department of	____	Toxic Substances Control, Department of
____	General Services, Department of	____	Water Resources, Department of
____	Health Services, Department of		
____	Housing & Community Development	____	Other ____
____	Integrated Waste Management Board	____	Other ____
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date: July 8, 2020 Ending Date: August 6, 2020

Lead Agency (Complete if applicable):

Consulting Firm: SHN Consulting Engineers
Address: 350 Hartnell Ave. #B
City/State/Zip: Redding, CA 96002
Contact: Bruce R. Grove
Phone: (530) 221-5424

Applicant: Pit River Tribe
Address: 37134 Main Street
City/State/Zip: Burney, CA 96013
Phone: ____

Signature of Lead Agency Representative: Paul A. Hill **Date:** 7/7/20

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

ENVIRONMENTAL INITIAL STUDY & MITIGATED NEGATIVE DECLARATION

Grading Permit GRADE19-0054
Hardin Road Access Project
Pit River Tribe

July 7, 2020

ENVIRONMENTAL INITIAL STUDY &
MITIGATED NEGATIVE DECLARATION
with
References and Documentation

Prepared by
SHASTA COUNTY DEPARTMENT OF RESOURCE MANAGEMENT
PLANNING DIVISION
1855 Placer Street, Suite 103
Redding, California 96001

SHASTA COUNTY
ENVIRONMENTAL CHECKLIST FORM

INITIAL STUDY & MITIGATED NEGATIVE DECLARATION

1. **Project Title:** Grading Permit GRADE19-0054

2. **Lead Agency Name and Address**:
Shasta County Department of Resource Management, Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001-1759

3. **Contact Person and Phone Number:**
Tara Petti, Associate Planner, (530) 225-5532

4. **Project Location:** The project is located in the United States Geological Survey (USGS) 7.5-minute Montgomery Creek topographic quadrangle, Section 1, Township 34 North, Range 11 West, Mount Diablo Base Meridian (MDBM). Road improvements are proposed on Windy Point Road, Hardin Road, and that portion of SR-299 between Windy Point Road and Hardin Road.

5. **Applicant Name and Address:**
Pit River Tribe
37134 Main Street
Burney, CA 96013

6. **General Plan Designation:** Rural Residential A (RA)

7. **Zoning:**
APN 029-520-004 - Limited Residential (R-L), Mobile Home (T), Building Area-10 Acres (BA-10)
APN 029-520-005 - Limited Residential (R-L)
APN 029-520-006 - Limited Residential (R-L)
APN 029-530-011 - Limited Residential (R-L)
APN 029-530-012 - Limited Residential (R-L)
APN 029-530-013 - Limited Residential (R-L)
APN 029-530-014 - Unclassified (U)

8. **Description of Project:** The proposed project includes the extension of Hardin Road for approximately 1,100 linear feet (LF) and reconstruction of approximately 2,750 LF of an existing segment of Hardin Road to improve connectivity to Windy Point Road (a Tribal road) and to State Route 299 (SR-299). In addition to the Hardin Road portion of the project, the proposed project would require the widening of approximately 1,300 LF of SR-299 to accommodate the construction of a new left turn lane onto Hardin Road. The proposed project also includes the construction of road appurtenances such as roadside drainage ditches, culverts, signs, and other required.

9. **Surrounding Land Uses and Setting:** Surrounding the proposed project site is a mixture of developed rural residential lands and minimally developed lands that have been zoned for various levels of housing. Adjacent land ownership is a mixture of Tribal Trust and private fee title.

10. **Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):**
California Department of Fish and Wildlife
California Department of Transportation
Central Valley Regional Water Quality Control Board
United States Army Corps of Engineers

11. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

Consultation and correspondence with various culturally affiliated Tribal groups and agencies were conducted as in accordance with Public Resources Code (PRC) Section 21080.3.1. As a Pit River Tribal Project, the Tribal Historic Preservation Officer

(Natalie Forrest-Perez) was contacted, and Ms. Forrest-Perez facilitated contacts with the Madesi Band of the Pit River Tribe. Other contacts included representatives from the Greenville Rancheria, Quartz Valley Indian Community, Wintu Tribe of Northern California, Winnemem Wintu Tribe, Nor-Rel-Muk Nation, Redding Rancheria, Shasta Nation, Shasta Indian Nation and the Native American Heritage Commission.

Pursuant to PRC §21080.3.1, the Department of Resource Management sent a certified letter to each of the aforementioned Tribes on May 12, 2020 providing notification that the project was under review and to provide the Tribes 30 days from the receipt of the letter to request consultation on the project in writing. No response was received.

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

Section 1.0
Introduction and Purpose

1.1 Introduction

This document is an Initial Study that summarizes the technical studies prepared for proposed Grading Permit GRADE19-0054, referred to as the Hardin Road Access Project (herein referenced as the proposed project) and provides justification for a Mitigated Negative Declaration (MND). This document has been prepared in accordance with the current California Environmental Quality Act (CEQA), Public Resources Code Section 21000 et seq., and the State CEQA Guidelines. The purpose of this document is to evaluate the potential environmental impacts of the proposed project. Mitigation measures have been proposed to avoid or minimize any significant impacts that were identified.

1.2 Lead Agency

The Lead Agency is the public agency with primary responsibility for implementing a proposed project. Accordingly, the Shasta County Department of Resource Management – Planning Division (County) is the CEQA Lead Agency.

1.3 Purpose of the Initial Study

CEQA requires that public agencies document and consider the potential environmental effects of the agency's actions that meet CEQA's definition of a "project." Briefly summarized, a "project" is an action that has the potential to result in direct or indirect physical changes in the environment. A project includes the agency's direct activities as well as activities that involve public agency approvals or funding. Guidelines for an agency's implementation of CEQA are found in the CEQA Guidelines (Title 14, Chapter 3 of the California Code of Regulations).

Provided that a project is not exempt from CEQA, the first step in the agency's consideration of its potential environmental effects is the preparation of an Initial Study. The purpose of an Initial Study is to determine whether the project would involve "significant" environmental effects, as defined by CEQA, and to describe feasible mitigation measures that would avoid significant effects or reduce them to a level that is less than significant. If the Initial Study does not identify significant effects, then the agency prepares a Negative Declaration (ND). If the Initial Study notes significant effects but also identifies mitigation measures that would reduce these significant effects to a level that is less-than-significant, then the agency prepares a MND. If a project would involve significant effects that cannot be readily mitigated, then the agency must prepare an Environmental Impact Report (EIR). The agency may also decide to proceed directly with the preparation of an EIR without an Initial Study.

The proposed project is a "project" as defined by CEQA and is not exempt from CEQA consideration. The County has determined that the project may potentially have significant environmental effects and therefore would require preparation of an Initial Study. This Initial Study describes the proposed project and its environmental setting, discusses the potential environmental effects of the project, and identifies feasible mitigation measures that would eliminate any potentially significant environmental effects of the project or reduce them to a level that would be less-than-significant.

This Initial Study is a public information document that describes the proposed project, existing environmental setting at the project site, and potential environmental impacts of construction and operation of the proposed project. It is intended to inform the public and decision-makers of the proposed project's potential environmental impacts and to document the lead agency's compliance with CEQA and the State CEQA Guidelines.

This Initial Study concludes that the project would have potentially significant environmental effects, all of which would be avoided or reduced to a level that would be less-than-significant with recommended mitigation measures. The project applicant has accepted all the recommended mitigation measures. As a result, the County has prepared a MND and has issued a Notice of Intent (NOI) to adopt the MND for the project. The time available for public comment on the Initial Study and MND is shown on the Notice of Intent.

1.4 Review Process

This Initial Study is being circulated for public and agency review as required by CEQA. Because State agencies will act as responsible or trustee agencies, the County will circulate the Initial Study to the State Clearinghouse (SCH) of the Governor's Office of Planning and Research (OPR) for distribution and a 30-day review period. During the review period, written comments may be submitted to: Tara Petti, Associate Planner.

Section 2.0
Project Description

This Initial Study/Mitigated Negative Declaration (IS/MND) evaluates the environmental consequences of the proposed project, from a request by the Tribe, to implement the proposed transportation improvements. There is a recognized need to provide better access to the Rancheria property and improved connection to State Route 299 (SR-299) in order to provide updated transportation infrastructure for current uses and a transportation system that provides safe and reliable infrastructure, allows year-round emergency vehicle access, and allows future development on the Rancheria lands at the site.

The project is located in Shasta County, United States Geological Survey (USGS) 7.5-minute Montgomery Creek topographic quadrangle, with the project found at Section 1, Township 34 North, Range 11 West, Mount Diablo Base Meridian. Refer to **Figure 1** for a site location map and **Figure 2** for the location map.

The proposed project includes the development of approximately 1,100 linear feet (LF) of new road and reconstruction of approximately 2,750 LF of an existing road to improve the connectivity of the road to both the existing Windy Point Road (a Tribal road) and to SR-299. Current access onto SR-299 is on non-Tribal property, is steep, unpaved and has poor sight distance which can lead to increased traffic accidents from vehicles entering and exiting SR-299. In total, the proposed project would construct/reconstruct approximately 3,850 LF of roadway, changing the surfacing from unpaved native soils to asphalt-concrete (AC) pavement.

In addition to the Hardin Road portion of the project, the proposed project would require the widening of approximately 1,300 LF of SR-299 to accommodate the construction of a new left turn lane onto Hardin Road. The proposed project also includes the construction of road appurtenances such as roadside drainage ditches, culverts, signs, and other required devices. Refer to **Appendix A** for the road improvement plans for details.

The widening of SR-299 would modify the existing two 12-foot lanes with 1-2 foot shoulders to three 12-foot lanes with 8-foot paved shoulders. There are no proposed changes to the 55 miles per hour (MPH) posted speed limit or the 60 MPH design speed. California Department of Transportation (Caltrans) District 2 is the responsible state agency for traffic operations and improvements on SR-299 and has been designated by the Federal Highways Administration (FHWA) as the responsible federal lead agency for highway projects in California. Caltrans has reviewed the proposed improvements for SR-299 and design comments have been incorporated into the proposed improvement plans.

The proposed project is comprised of the following three components: 1) construction of the new segment of Hardin Road; 2) reconstruction and rehabilitation of existing Hardin Road segments that connect to the Tribe's existing Windy Point Road; 3) construction of a left turn lane on SR-299 onto the new segment of Hardin Road. In total, it is expected that approximately 2.75 acres will be impacted by construction. Components of the proposed project are summarized below.

Construction of Hardin Road

The proposed project includes the construction of approximately 1,100 LF of new paved road from an intersection with SR-299 to the existing segment of Hardin Road. The road will have two 11-foot wide paved lanes with two 4-foot gravel shoulder on each side, for a total width of 30 feet. Work will occur on lands owned in fee title by the Pit River Tribe. Where needed, drainage structures (culvert, road ditches) will be installed to provide appropriate site drainage and connect with existing road drainage features. Road construction will place 1.25 feet of Class 2 aggregate base over the road alignment and it will be compacted to applicable engineering standards. After the road base is placed, the road will be surfaced with 0.3 feet of AC pavement, creating a 22-foot wide paved roadway (two 11-foot lanes). After construction is completed, appropriate striping and signage will be installed. All roadway construction materials will comply with the Caltrans material property requirements. The proposed new segment of Hardin Road location is presented in **Appendix A,** Sheets C-4 and C-5**.**

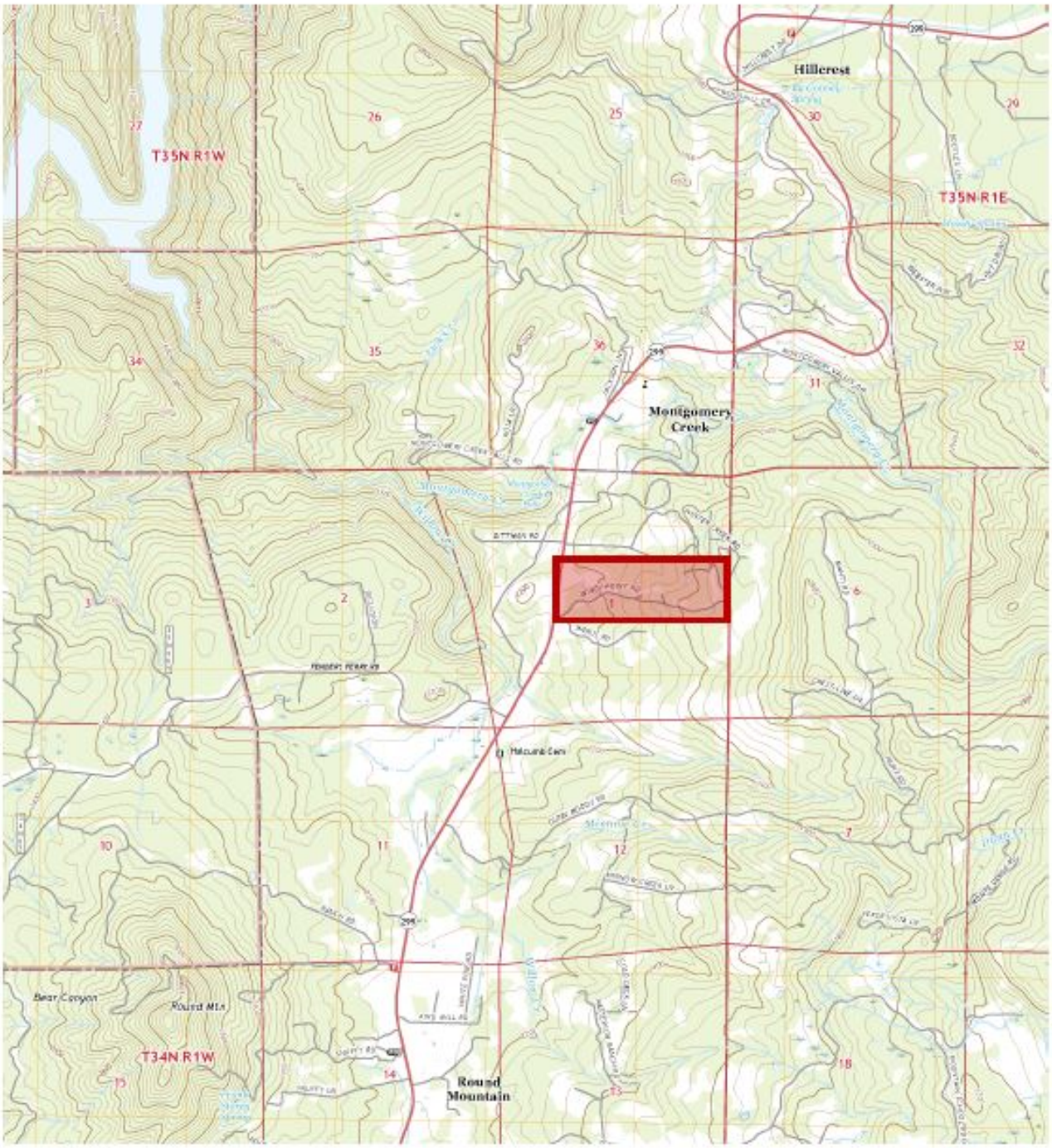
Reconstruction and Rehabilitation of Hardin Road

The proposed project includes the reconstruction/rehabilitation of approximately 2,750 LF of an existing segment of Hardin Road that is unpaved native soil. Road improvements will be the same as the new road segment, reconstructing the existing road to two 11-foot paved lanes and 4-foot gravel shoulders. Work will occur from the intersection of the new segment of Hardin Road to the existing Windy Point road (a Tribal road); refer to **Appendix A**, Sheets C-5 to C-7. This connection will result in a paved loop road through the Rancheria. Reconstruction and rehabilitation work will occur on land held in Tribal Trust by the BIA for the Pit River Tribe, private Tribal land of the Pit River Tribe (fee title), as well as four private non-Tribal parcels held in fee title; the Tribe has secured easements from these landowners for the use and improvement of these portions of Hardin Road.

Construction of Left Turn Lane on SR-299

The third aspect of the project is the construction of a new left turn lane on SR-299 onto the new segment of Hardin Road; work will occur over approximately 1,300 LF of the existing roadway. Refer to the roadway engineering drawings in **Appendix A** for details; Sheet C-15 provides a striping plan for the new roadway that provides a graphical representation of the finished roadway. In order to accommodate the turn lane, the highway will be widened to allow for three 12-foot paved traffic/turn lanes and the widening of the existing road shoulders from approximately two feet to eight feet wide. As with the other road construction, the ground surface will be cleared of all vegetation, organic topsoil, and other unsuitable material (where present). The road will then be constructed with 0.5 feet of AC pavement placed over 1.25 feet of Class 2 aggregate base. All construction materials will comply with the Caltrans material property requirements. Once completed, appropriate striping and signage will be installed.

Figure 1



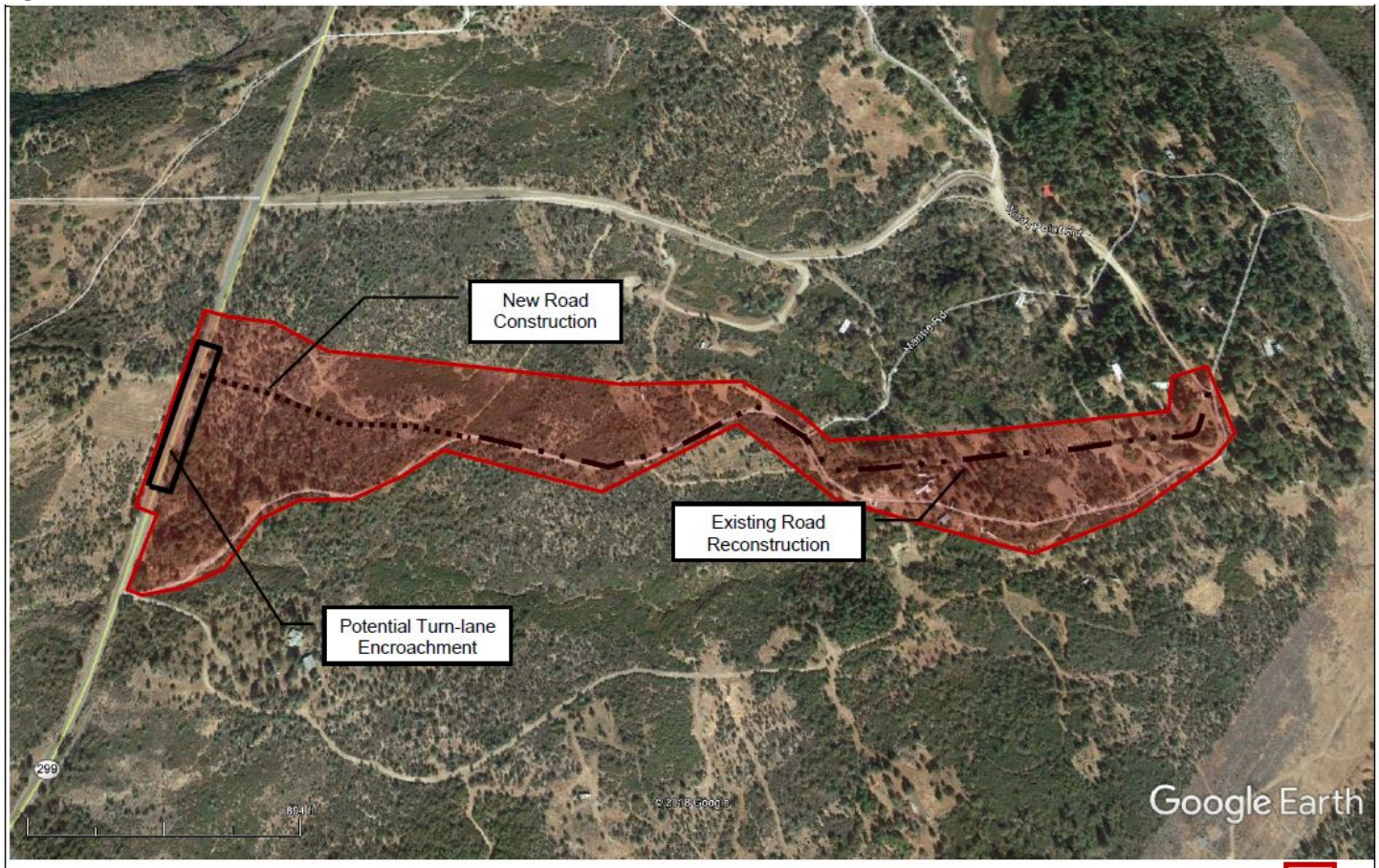
Original Scale 1:24,000

Project Location

Source: USGS Montgomery Creek Quad, 2018

SHN	Hardin Road Project Pit River Tribe Roads Department NEPA Environmental Assessment	Proposed Action Project Location JOB #517031.100
	October 2018	I:\2017\517031-Hardin-Road\100-Environmental\Figs\Figure 1-Project Location.docx	Figure #1

Figure 2



Source: Google Earth, 12/2017

Area of Investigations

NTS

Hardin Road Project
Pit River Tribe Roads Department
NEPA Environmental Assessment

Project Site
New and Reconstruction Alignments
JOB #517031.100

January 2019

I:\2017\517031-Hardin-Road\100-Environmental\Figs\Figure 2-Project Site.docx

Figure #2

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of the 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** of NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Copies of the Initial Study and related materials and documentation may be obtained at the Planning Division of the Department of Resource Management, 1855 Placer Street, Suite 103, Redding, CA 96001. Contact Tara Petti, Associate Planner, at (530) 225-5532.

Tara Petti
Associate Planner

7/7/20
Date

Paul A. Hellman
Director of Resource Management

7/7/20
Date

Section 3.0
Environmental Impacts & Mitigation Measures

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 parenthesis following each question. A "No Impact" answer is adequately supported if all 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).

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.

Once the lead agency has determined that a particular physical impact may occur, 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.

"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.

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 the following:

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-significant.

I. **AESTHETICS**: Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				X
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?				X
c) In non-urbanized 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 a publically accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

Discussion: The proposed project is located in an area of Shasta County that has a mixture of timberland, oak woodlands, and rural residential and public and private forests. The area surrounding the project is largely undeveloped, except for a few residences, barns and a mixture of developed and undeveloped roads. The closest commercial development is about a mile north along SR-299 in the community of Montgomery Creek, where minimal services are provided.

Scenic vistas are defined as expansive views of highly-valued landscapes from publicly accessible viewpoints. Scenic vistas include views of natural features such as topography, water courses, outcrops, and natural vegetation, as well as man-made scenic structures. The County has not designated specific scenic vistas in the immediate project area as a part of the Shasta County General Plan and there is no designated State or federal scenic highways or scenic highway corridors in the vicinity of the proposed project.

Visual and scenic resources at and in the vicinity of the proposed project consist of a rural landscape of minimal uses apart from transportation and rural housing developments in the foreground and middleground, with background views of distant mountain ranges. The area has historically been impacted by wildfires, creating a mosaic of vegetation types.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) The project would not result in any adverse effect on a scenic vista. The project surroundings are predominantly rural residential and undeveloped properties. There is no view of the project site which includes a scenic vista and the project would not visually obstruct a scenic vista. No impacts would occur in this regard.

   Mitigation Measures: No mitigation measures are required.

b) The project would not substantially damage any scenic resource. The project site is not visible from a designated scenic highway. No impacts would occur in this regard.

   Mitigation Measures: No mitigation measures are required.

c) The project would not degrade the existing visual character or quality of the site and its surroundings. The project surroundings are rural residential and undeveloped properties. Construction of Hardin Road and the turn lane on SR-299 would be at grade and not result in the introduction of intervening structures in the area. Although the alignment would result in a change from existing conditions, the proposed project would not be inconsistent with the existing visual character and quality of the site and its surroundings. Impacts are considered less-than-significant in this regard.

   Mitigation Measures: No mitigation measures are required.

d) The proposed project does not include the roadway lighting. The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in a non-urbanized area. No impacts would occur in this regard.

   Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Aesthetics* were found to be less-than-significant. No mitigation measures are required.

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:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or 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
b) Conflict with existing zoning for agricultural use, or a Williamson Act Contract?				X
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
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
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

Discussion: According to the California Department of Conservation, Farmland Mapping and Monitoring Program (DOC, 2018), the entire alignment has been mapped as containing one type of land classification, "Other Land." Lands designated as Other Lands are lands that are not included in any Important Farmland Category; examples include low density rural developments, brush, timber, wetland, and riparian areas not suitable for livestock, livestock grazing, aquaculture, mines, or are parcels greater than 40 acres that are surrounded on all sides by urban development. These lands are not considered prime or important farmland. Lands at the site of the proposed project were evaluated and found to be in alignment with the Other Land designation, having low-density rural developments and brush hillsides.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determination can be made:

a) The proposed alignment is not identified as Prime Farmland, Unique Farmland, or Statewide Importance on the map titled Shasta County Important Farmland 2016. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Neither the proposed alignment nor the surrounding properties are zoned for agricultural use nor are they in a Williamson Act Contract. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

c) The project would not 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)). The project site is not forest land, timberland or zone Timberland Production. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

d) The project would not result in the loss of forest land or conversion of forest land to non-forest use. The project site is not forest land. In addition the proposed alignment is not located in an area of significant agricultural soils. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Agricultural and Forestry Resources* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

III. 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 Incorporated	Less-Than-Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
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?		X		
c) Expose sensitive receptors to substantial pollutant concentrations?		X		
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

Discussion: The Clean Air Act requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for six common air pollutants (also known as "criteria air pollutants") (EPA, 2018). These pollutants include ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM), and lead (Pb). Concentrations of criteria air pollutants are used as indicators of ambient air quality conditions.

The project site is located in Shasta County, which is the most northern county in the Northern Sacramento Valley Air Basin (NSVAB). Ambient air quality in Shasta County, and thus at the project site, can be inferred from ambient air quality measurements conducted at air quality monitoring stations. Existing levels of ambient air quality and historical trends and projections in the region are documented by measurements made by the Shasta County Air Quality Management District (SCAQMD), which is the air pollution regulatory agency for the portion of the NSVAB in Shasta County. The SCAQMD maintains four (4) full time ozone monitoring sensors and one (1) full time particulate matter 2.5 monitoring sensor. All monitoring sensors are south of the proposed project.

Table 1 shows the attainment status of Shasta County with respect to NAAQS (CARB, 2018) and California ambient air quality standards (CAAQS) (CARB, 2018). The three basic designation categories shown in Table 1 are "non-attainment," "attainment," and "unclassified." The attainment designation means that an area meets the national or state ambient air quality standards for a given criteria air pollutant. The non-attainment designation means that an area exceeds the national or state ambient air quality standards for a given criteria air pollutant. The unclassified designation is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. As indicated in Table 1, Shasta County is designated as attainment or unclassified for most federal and state ambient air quality standards. The one exception is the state ambient air quality standard for Ozone (O_3).

Table 1
Attainment Status Summary - Shasta County, California

Criteria Pollutants	Federal Designation	State Designation
Ozone (O_3) (1-hour)	(no federal standard)	Non-attainment
Ozone (O_3) (8-hour)	Unclassified/Attainment	Non-attainment
Nitrogen Dioxide (NO_2)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO_2)	Unclassified/Attainment	Attainment
Carbon Monoxide (CO)	Unclassified/Attainment	Unclassified
Particulates (as PM_{10})	Unclassified	Attainment
Particulates (as $PM_{2.5}$)	Unclassified/Attainment	Attainment
Lead (Pb)	Unclassified/Attainment	Attainment
Sulfates (as SO_4)	(no federal standard)	Attainment
Hydrogen Sulfide (H_2S)	(no federal standard)	Unclassified
Vinyl Chloride (C_2H_3Cl)	(no federal standard)	n/d[1]
Visibility Reducing Particles	(no federal standard)	Unclassified

1. n/d = no data available

Ozone is a photochemical oxidant - a substance whose oxygen combines chemically with another substance in the presence of sunlight. In the lower atmosphere, ozone is the primary component of smog. Ozone is not emitted directly into the air but is formed through complex chemical reactions between certain emissions, known as "precursor emissions," in the presence of sunlight. The precursor emissions for ozone are reactive organic gases (ROG) and nitrogen oxides (NO_X). ROGs are volatile organic compounds that are photochemically reactive. ROG emissions result primarily from incomplete combustion and the evaporation of chemical solvents and fuels. Common sources of ROG emissions include solvents, pesticides, the burning of fuels, and organic wastes. NO_X is a group of gaseous compounds of nitrogen and oxygen that result from the combustion of fuels. Common sources of NO_X emissions include

emissions from burning of fuel in cars, trucks, buses, power plants, and off-road equipment (USEPA, 2018).

Development around the site consists of limited residential (R-L), mobile home (T), timberland (TL) and unclassified (U). Traffic is generally confined to SR-299 which is a main transit corridor from Alturas in northeastern California to Redding in the center of the state, and then to Eureka on the California coast. Traffic is minimal on the road due to the rural nature of northern California; however, it can become congested due to the limited size of SR-299 (generally two lanes) and the winding terrain through the mountains.

In determining whether a project has significant air quality impacts on the environment, planners typically apply the local air district's thresholds of significance to projects during the environmental review process. To assist in the evaluation of air quality impacts, the SCAQMD has adopted air quality thresholds for determination of impact significance. These thresholds are consistent with Rule 2:1 (New Source Review) adopted by the SCAQMD Board in 1993 as required by the California Clean Air Act (CARB, 2019). The thresholds of significance are summarized in Table 2.

Table 2
SCAQMD Thresholds of Significance

Threshold	Emissions (pounds per day)		
	NOx	ROG	PM10
Level A Thresholds	25	25	80
Level B Thresholds	137	137	137

The SCAQMD recommends that projects apply Standard Mitigation Measures (SMM) and appropriate Best Available Mitigation Measures (BAMM) when a project exceeds Level A thresholds and that projects apply SMM, BAMM, and special BAMM when a project exceeds Level B thresholds. Projects that cannot mitigate emissions to levels below the Level B thresholds are considered significant.

Sensitive receptors (e.g., children, senior citizens, and acutely or chronically ill people) are more susceptible to the effect of air pollution than the general population. Land uses that are considered sensitive receptors typically include residences, schools, parks, childcare centers, hospitals, convalescent homes, and retirement homes. The nearest known potential sensitive receptors to the proposed project includes several residential units along the existing section of Hardin Road that is proposed to be reconstructed. These residential units vary from approximately 50 to 250 feet from the existing section of Hardin Road.

Criteria air pollutants are regulated by the SCAQMD, CARB, and the Environmental Protection Agency (EPA). Exposure to criteria air pollutants can cause a myriad of adverse health effects in humans. Human health effects of criteria air pollutants are summarized below in Table 3.

Table 3
Criteria Air Pollutants Summary of Common Sources and Effects

Pollutant	Major Sources	Human Health Effects
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust (CAPCOA, 2011).	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness and can lead to unconsciousness or death (CAPCOA, 2011).
Nitrogen Dioxide (NO2)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel (CAPCOA, 2011).	A respiratory irritant; aggravates lung and heart problems. A precursor to ozone. Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere (CAPCOA, 2011).
Ozone (O3)	A colorless or bluish gas (smog) formed by a chemical reaction between reactive organic gases (ROGs) and nitrous oxides (NOx) in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, gasoline storage and transport, solvents, paints, and landfills (CAPCOA, 2011).	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield (CAPCOA, 2011).
Particulate Matter (PM10 & PM2.5)	Produced by power plants, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles and others (CAPCOA, 2011).	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; non-fatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (CAPCOA, 2011).
Sulfur Dioxide (SO2)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships (CAPCOA, 2011).	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, sulfur dioxide converts to sulfuric acid which can damage marble, iron and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain (CAPCOA, 2011).

Pollutant	Major Sources	Human Health Effects
Hydrogen Sulfide (H_2S)	A colorless gas with the odor of rotten eggs. The most common sources of H2S emissions are oil and natural gas extraction and processing, and natural emissions from geothermal fields. It is also formed during bacterial decomposition of human and animal wastes and is present in emissions from sewage treatment facilities and landfills. Industrial sources include petrochemical plants, coke oven plants, and kraft paper mills (CARB, 2020).	Can induce tearing of the eyes and symptoms related to overstimulation of the sense of smell, including headache, nausea, or vomiting. A few studies suggest that asthmatics may be at increased risk of exacerbation of their asthma symptoms (CARB, 2020).
Lead	Metallic element emitted from metal refineries, smelters, battery manufacturers, iron and steel producers, use of leaded fuels by racing and aircraft industries (CARB, 2020).	Anemia, high blood pressure, brain and kidney damage, neurological disorders, cancer, lowered IQ. Affects animals, plants, and aquatic ecosystems (CARB, 2020).
Sulfate	A sub-fraction of ambient particulate matter. Emissions of sulfur-containing compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. A small amount of sulfate is directly emitted from combustion of sulfur-containing fuels, but most ambient sulfate is formed in the atmosphere (CARB, 2020).	Much like health effects of PM2.5, sulfate can cause reduced lung function, aggravated asthmatic symptoms, and increased risk of emergency department visits, hospitalizations, and death in people who have chronic heart or lung diseases (CARB, 2020).
Vinyl Chloride	A colorless gas with a mild, sweet odor. Most vinyl chloride is used in the process of making polyvinyl chloride (PVC) plastic and vinyl products, thus may be emitted from industrial processes. Vinyl chloride has been detected near landfills, sewage treatment plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents (CARB, 2020).	Short-term exposure to high levels (10 ppm or above) of vinyl chloride in air causes central nervous system effects, such as dizziness, drowsiness, and headaches. The primary non-cancer health effect of long-term exposure to vinyl chloride through inhalation or oral exposure is liver damage. Inhalation exposure to vinyl chloride has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans (CARB, 2020).
Visibility Reducing Particles	These particles vary greatly in shape, size and chemical composition, and come from a variety of natural and manmade sources. Some haze-causing particles are directly emitted to the air such as windblown dust and soot. Others are formed in the air from the chemical transformation of gaseous pollutants (e.g., sulfates, nitrates, organic carbon particles) which are the major constituents of fine PM. These fine particles, caused largely by combustion of fuel, can travel hundreds of miles causing visibility impairment (CARB, 2020).	Haze not only impacts visibility, but some haze-causing pollutants have been linked to serious health problems and environmental damage as well. Exposure to particles up to 2.5 (PM2.5) and 10 microns (PM10) in diameter in the ambient air can contribute to a broad range of adverse health effects, including premature death, hospitalizations and emergency department visits for worsened heart and lung diseases (CARB, 2020).

Based on related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

a) The proposed project would construct and reconstruct approximately 0.73 miles of Hardin Road and widen approximately 0.25 miles of SR-299 to provide for a new left turn lane. As such, emissions of criteria air pollutants from the project will primarily occur from short-term construction activity. Due to the small scale of the project and limited duration of construction activity, the project would not conflict with or obstruct implementation of the 2018 Attainment Plan for Northern Sacramento Valley Planning Area as adopted by Shasta County, or any other applicable air quality plan.

In addition, the Shasta County General Plan requires Standard Mitigation Measures and Best Available Mitigation Measures on all discretionary land use applications as recommended by the AQMD in order to mitigate both direct and indirect emissions of non-attainment pollutants. Application of this requirement in combination with the limited scope of daily vehicle trips projected will not result in a cumulatively considerable increase of any criteria pollutant and would not conflict with or obstruct implementation of the Northern Sacramento Valley Air Quality Attainment Plan. Therefore, impacts are considered to be less-than-significant.

Mitigation Measures: No mitigation measures are required.

b) The proposed project would construct and reconstruct approximately 0.73 miles of Hardin Road and widen approximately 0.25 miles of SR-299 to provide for a new left turn lane. As with any new development project, the proposed project has the potential to generate pollutant concentrations during both construction activities and long-term operation. However, operational emissions for the project will be very limited since the project proposes development of road improvements that will not include any buildings or mechanical equipment.

Both construction and operational emissions for the proposed project were estimated using the California Emissions Estimator Model (CalEEMod), which is a statewide land use emissions computer model designed to provide a uniform platform for government agencies to quantify potential criteria pollutant emissions associated with both construction and operation of a variety of land use projects (CAPCOA, 2016). The results of the proposed project's emissions estimations were compared to the SCAQMD thresholds of significance identified in Table 2. Tables 4 and 5 show the SCAQMD thresholds compared to the proposed project's maximum daily construction and operational emissions (unmitigated).

Table 4
Maximum Daily Construction Emissions (Unmitigated)

Criteria Pollutants	Emission (pounds per day)					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions - 2020	25.2	42.5	22.6	0.04	20.5	12.0
Level A/B Significance Threshold	25/137	25/137	None	None	80/137	None
Exceeds Significance Threshold?	Yes/No	Yes/No	NA	NA	No/No	NA
Source: SCAQMD and California Emissions Estimator Model (CalEEMod; CAPCOA, 2016); Modeling results included as Appendix B.						

Table 5
Maximum Daily Operational Emissions (Unmitigated)

Criteria Pollutants	Emission (pounds per day)					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions - 2020	0.10	0.0000	0.0004	0.0000	0.0000	0.0000
Level A/B Significance Threshold	25/137	25/137	None	None	80/137	None
Exceeds Significance Threshold?	No/No	No/No	NA	NA	No/No	NA
Source: SCAQMD and California Emissions Estimator Model (CalEEMod; CAPCOA, 2016); Modeling results included as Appendix B.						

As indicated in Tables 4 and 5, with the exception of ROG and NOx emissions, the maximum daily construction and operational emissions from the proposed project are below the SCAQMD Level A and B significance thresholds. As indicated in Table 4, the emissions of ROG and NOx from construction activity are over the Level A threshold. As noted above, the SCAQMD recommends that projects apply SMM and appropriate BAMM when a project exceeds Level A thresholds. To comply with the SCAQMD recommendations, the following mitigation measures will be implemented for the project.

Mitigation Measures: The following mitigation measure has been developed to reduce potential air quality impacts to less than significant levels:

Mitigation Measure III.b.1. Prior to issuance of a grading permit, the project applicant shall submit a grading plan for review and approval by the Shasta County Building Department. The following specifications shall be included to reduce short-term air quality impacts attributable to the proposed project:

- During all construction activities, all diesel-fueled construction equipment, including but not limited to rubber-tired dozers, graders, scrapers, excavators, asphalt paving equipment, cranes, and tractors, shall be California Air Resources Board (CARB) Tier 3 Certified or better as set forth in Section 2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 of the Code of Federal Regulations.[1]
- All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. Equipment maintenance records shall be kept onsite and made available upon request by the County of Shasta.
- All material excavated, stockpiled, or graded shall be sufficiently watered to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering shall occur at least twice daily with complete site coverage, preferably in the mid-morning and after work is completed each day.
- All areas (including unpaved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions.
- All onsite vehicles shall be limited to a speed of 15 miles per hour on unpaved roads.
- All land clearing, grading, earth-moving, or excavation activities on the project site shall be suspended when sustained winds are expected to exceed 20 miles per hour.
- All portions of the development site which have been stripped of vegetation by construction activities and left inactive for more than ten days shall be seeded and/or watered until a suitable grass cover is established.

1 NOx emissions are primarily associated with use of diesel-powered construction equipment (e.g., graders, excavators, rubber-tired dozers, tractor/loader/backhoes). The Clean Air Act of 1990 directed the EPA to study, and regulate if warranted, the contribution of off-road internal combustion engines to urban air pollution. The first federal standards (Tier 1) for new off-road diesel engines were adopted in 1994 for engines over 50 horsepower and were phased in from 1996 to 2000. In 1996, a Statement of Principles pertaining to off-road diesel engines was signed between the EPA, CARB, and engine makers (including Caterpillar, Cummins, Deere, Detroit Diesel, Deutz, Isuzu, Komatsu, Kubota, Mitsubishi, Navistar, New Holland, Wis-Con, and Yanmar). On August 27, 1998, the EPA signed the final rule reflecting the provisions of the Statement of Principles. The 1998 regulation introduced Tier 1 standards for equipment under 50 horsepower and increasingly more stringent Tier 2 and Tier 3 standards for all equipment with phase-in schedules from 2000 to 2008. As a result, all off-road, diesel-fueled construction equipment manufactured in 2006 or later has been manufactured to Tier 3 standards.

- All trucks hauling dirt, sand, soil, or loose material shall be covered or shall maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the trailer) in accordance with the requirements of California Vehicle Code Section 23114. This provision will be enforced by local law enforcement agencies.
- All material transported offsite shall be either sufficiently watered or securely covered to prevent a public nuisance.
- Wheel washers shall be installed where project vehicles and/or equipment enter and/or exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip.
- Prior to final occupancy, the applicant shall re-establish ground cover on the construction site through seeding and watering.
- Off-road construction equipment shall not be left idling for periods longer than 5 minutes when not in use.

The recommended mitigation measures require diesel-fueled construction equipment to have CARB certified Tier 3 or better engines to reduce NO_X emissions throughout the duration of project construction activities. Additionally, the mitigation measures also include various dust control measures to reduce fugitive PM_{10} and $PM_{2.5}$, such as regular watering of disturbed areas, providing trackout devices, covering stockpiles, and limiting onsite vehicle speeds. Implementation of these mitigation measures would substantially reduce impacts resulting from construction-generated emissions associated with project construction as shown in Table 6. Due to limitations in the modeling software, only the pollutant reductions resulting from the requirement of Tier 3 Certified or better engines and fugitive dust measures are quantified.

Table 6
Maximum Daily Construction Emissions (Mitigated)

Criteria Pollutants	Emission (pounds per day)					
	ROG	NOx	CO	SOx	PM_{10}	$PM_{2.5}$
Maximum Daily Emissions - 2020	25.0	19.1	25.5	0.04	9.3	5.5
Level A/B Significance Threshold	25/137	25/137	None	None	80/137	None
Exceeds Significance Threshold?	No/No	Yes/No	NA	NA	No/No	NA
Percent Reduction from Mitigation	0.73%	55.0%	-12.9%	0.0%	54.6%	54.4%

Source: SCAQMD and California Emissions Estimator Model (CalEEMod; CAPCOA, 2016); Modeling results included as Appendix B.

As indicated in Table 6, with the implementation of Mitigation Measure AQ-1, the emissions of ROG and NOx from construction activity would be reduced to at or below the Level A threshold. Therefore, as mitigated, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant, including ozone, ozone pre-cursors, or PM_{10}, the pollutants for which the Northern Sacramento Valley Planning Area is in non-attainment under the applicable State ambient air quality standard (SVAQEEP, 2018).

c) As noted in the Setting, high concentrations of criteria air pollutants and toxic air contaminants can result in adverse health effects to humans. Some population groups are considered more sensitive to air pollution than others; in particular, children, elderly, and acutely or chronically ill persons, especially those with cardio-respiratory diseases such as asthma and bronchitis. Land uses that generally house more sensitive people include residences, schools, parks, childcare centers, hospitals, convalescent homes, and retirement homes. The nearest known potential sensitive receptors to the proposed project includes several residential units along the existing section of Hardin Road that is proposed to be reconstructed. These residential units vary from approximately 50 to 250 feet from the existing section of Hardin Road.

The following analysis evaluates whether the project would result in construction or operational-related impacts to sensitive receptors.

Construction

Asbestos. The U.S. Geological Survey (USGS, 2011) has published mapping identifying areas that are known to contain naturally occurring asbestos (NOA). The California Department of Conservation (DOC, 2000) has also published mapping of areas more likely to contain naturally occurring asbestos. These mapping sources indicate that there are several locations within western Shasta County that are known or likely to contain NOA. The project site is located near the SR-299 corridor in central Shasta County and is not identified as an area that is known to contain or likely to contain NOA. The closest areas known to contain NOA are located over 20 miles from the project site (USGS, 2011 and DOC, 2000). As such, the project site is not known or likely to contain NOA that could be released during construction activities such as demolition, site preparation, grading, and trenching.

Diesel PM. The use of diesel-powered equipment during construction activity would generate diesel particulate matter (DPM), which is a known carcinogen. The majority of heavy diesel equipment used during construction activity would occur during grading of the project site. Exhaust fumes from construction equipment will be isolated to areas immediately surrounding the sources and will dissipate rapidly. It is estimated that grading activity would occur over approximately a 23-day period. Residents

and other sensitive receptors located within the vicinity of the project site would be exposed to construction contaminants only for the duration of construction activity. These brief exposure periods would substantially limit exposure to hazardous emissions.

As discussed above, Mitigation Measure AQ-1 requires diesel-fueled construction equipment to have CARB certified Tier 3 or better engines. Implementation of this measure will significantly reduce NOx and exhaust particulate matter emissions generated during construction activity. In addition, any relevant vehicle or equipment use associated with construction of the project will be subject to CARB standards. The CARB In-Use-Off-Road Diesel Vehicle Regulation applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulations: 1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; 2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System, DOORS) and labeled; 3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and 4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies, VDECS (i.e., exhaust retrofits). The requirements and compliance dates of the Off-Road regulation vary by fleet size, as defined by the regulation.

With the implementation of Mitigation Measure AQ-1, the short duration of construction activity requiring heavy diesel equipment, and in compliance with CARB regulations, construction of the proposed project would not expose sensitive receptors to substantial concentrations of diesel PM.

Fugitive Dust: Fugitive dust has the potential to be generated during construction from activities including demolition, site preparation, grading, and trenching. Fugitive dust generated from construction activity can result in nuisances and localized health impacts. Construction activities are required to comply with SCAQMD Rule 3:16 (Fugitive, Indirect, or Non-Traditional Sources) by employing Reasonably Available Control Measures to minimize dust. As discussed above, standard conditions for controlling dust emissions during construction will be required as Mitigation Measure AQ-1, to reduce impacts from fugitive dust generation. The measures required by Mitigation Measure AQ-1 are consistent with the requirements in District Rule 3:16 (CARB, 2019). With the implementation of Mitigation Measure AQ-1 and the limited duration of construction activities, the proposed project will not expose sensitive receptors to substantial concentrations of fugitive dust. Therefore, the proposed project's construction activity would result in a less-than-significant impact with mitigation incorporated.

Mitigation Measures: Refer to Mitigation Measure III.b.1, above.

<u>Operation</u>

The proposed road improvements are not a type of land use that would generally be considered to emit toxic emissions that would expose sensitive receptors to substantial pollutant concentrations. These types of land uses typically include uses such as combustion related power plants, gasoline dispensing facilities, asphalt batch plants, warehouse distribution centers, and quarry operations. However, traffic on the reconstructed and new road sections would result in the emissions of criteria air pollutants and toxic air contaminants, which have the potential to impact nearby residential uses.

After construction of the proposed project, vehicle traffic on Hardin Road is estimated to be low compared to the thresholds recommended by CAPCOA (2009) for siting of new land uses (i.e., rural roads with a traffic volume of 50,000 vehicles per day). For comparison, the most recent data available from Caltrans (2017) indicates that SR-299 carries an annual average daily traffic volume of 3,650 vehicles per day in the area of the project site at the SR-299/Terry Mill Road intersection (post-mile 53.3). It is anticipated that traffic on Hardin Road will be significantly less than this and would not expose nearby residential uses to substantial concentrations of criteria air pollutants or toxic air contaminants. Therefore, operation of the proposed project would result in a less-than-significant impact.

Mitigation Measures: No mitigation measures are required.

d) The construction phase of the proposed project will include the paving of road improvements, which will consist of the application of hot asphalt. Construction of the proposed road improvements will also involve the use of a variety of gasoline- or diesel-powered equipment that emits exhaust fumes. Odors from hot asphalt and exhaust fumes may be considered objectionable, however, these odors would be isolated to areas immediately surrounding their sources and would dissipate rapidly. The land uses surrounding the project site include a small number of low-density residential units. Therefore, a substantial number of people would not be adversely affected by construction of the proposed project. Furthermore, the generation of odors will be temporary and subside once project construction is concluded.

Operation of the proposed project is not a type of land use that would generally be considered to result in significant emissions, such as those leading to odors, that would affect a substantial number of people. Therefore, the proposed project would result in a less-than-significant impact on this resource category.

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Air Quality* were found to be less-than-significant with the implementation of the mitigation measures.

IV. BIOLOGICAL RESOURCES: Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial 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?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local of regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
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?		X		
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		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?		X		
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

Discussion: The proposed alignment was assessed by a qualified wildlife and fisheries biologist and a botanist for the presence of federal and State of California listed species of concern, and none were located. Field evaluations were made based on the information collected from the IPac, CNPS and CNDDB special status species lists. The areas potentially impacted by the project were assessed by a qualified botanist on April 13 and July 24, 2018 to determine if the site contained any special status plant species or sensitive plant communities. Additionally, on April 19-20 and July 24, 2018 the proposed project site was evaluated by a qualified biologist to determine if the site contained any special status wildlife species and their habitat. The proposed alignment was previously impacted by construction activities and has been disturbed with the development of access roads, overhead power lines, and underground utilities.

The IPac, CNPS and CNDDB inventory search revealed 78 special status species (federal and state) that had the potential to be present within nine USGS quadrangles surrounding the proposed project area. Of these species, 9 special status botanical species (CNPS Rank 1B, 2.A and 2.B) were determined to have a "Moderate" or "High" potential of occurrence in the nine-quad search area. However, no special status botanical or wildlife species were observed within the proposed project area.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) The proposed project does not impact any State or federally listed species, as none are located within the areas proposed for road construction/reconstruction work. Site specific evaluations were conducted by professional biologists to assess the potential impacts to wildlife, fish and botanical resources. Biological resource assessments are found in **Appendix C**. From those assessments, it has been determined that the proposed project will not impact on any federally listed wildlife, fish or botanical species or their critical habitats. This determination is based on the fact that the proposed project area has had significant historical impacts from wildfire that have modified habitats; project sites are located along existing roads that have had significant historical impacts to habitats by removing vegetation and altering the area around the roadway for non-habitat uses; residential development has degraded the quality of habitat in several areas.

The proposed project will have a minor impact on the California Oat-Grass Prairie vegetation community, by removing approximately 0.08 acres of this vegetation community with the construction of the new segment of Hardin Road. This State of California "S3" vegetation community is not a listed species, but the State has recognized that it has declining acres of this community and recommends avoidance and minimization methods be employed during project design. Road alignment alternatives were unable to eliminate impacting this site, as the intersection of Hardin Road and the new turn lane on SR-299 require that the

alignment be located in the same area as the oat-grass prairie vegetation. Mitigation Measure IV.a.1 provides for avoidance and minimization strategies, which include evaluation of alignment locations prior to construction. Additionally, if impacts must occur, Mitigation Measure IV.a.1 provides for additional pre-construction botanical surveys to ensure the location of the vegetation community and make a final assessment of the acres to be impacted for use in payment of mitigation bank credits to offset this loss of habitat. With implementation of Mitigation Measure IV.a.1, impacts would be less-than-significant.

Mitigation Measures: The following mitigation measures have been developed to reduce potential biological resource impacts to less-than-significant levels:

Mitigation Measure IV.a.1. To minimize the potential impacts to California oat-grass prairie, and to mitigate for the potential impacts, the following shall be implemented.

1. This vegetation community shall be avoided during the implementation of the project by relocating the new roadway segment that impacts identified habitat.
2. If avoidance is not feasible then the following will occur:
   a. Prior to project development, follow-up site reviews by a qualified biologist will re-assess the California oat-grass prairie vegetation community to determine if the community area has expanded or contracted since development of the site investigations in 2018.
   b. If the vegetation community is no longer present, then no further action will be required.
   c. If the follow-up surveys determine that the California oat-grass prairie vegetation type is still present and impacted by the project, the project proponent will coordinate with the California Department of Fish and Wildlife (CDFW) to develop an appropriate mitigation and revegetation plan which would include, but is not limited to seed collecting, restoration of onsite habitat, monitoring, and success criteria.

b) The proposed project will not impact any designated or identified wetland resources within the project area. Construction of a portion of the new Hardin Road alignment will impact a portion of an unnamed ephemeral drainage, approximately 0.05 acres in total area of impact. The new road alignment will install a 48-inch Corrugated Metal Pipe (CMP) within the channel to direct flow through the pipe and under the new roadway. Over the pipe, road base rock and AC pavement and gravel shoulders will be installed to provide a permanent crossing of the channel. Vegetation at this site has been historically cleared as it is in a location of other undeveloped road crossings, which have impacted the drainage.

Installation of the new CMP will provide undisturbed stream flows when present (including the 100-year event) and provide access over the waterway which should reduce or eliminate other off-road crossings of the drainage. Due to the limited potential for disturbance, it was determined that the proposed project is considered minor and temporary impact and does not require the Tribe to prepare a delineation report for these actions. However, the installation of the pipe and construction of the road across the drainage will require regulatory permits from the Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), and the Central Valley Regional Water Quality Control Board (RWQCB).

The ACOE must authorize construction activities expected to adversely affect this drainage; thus a Section 404 Permit would have to be obtained from the ACOE prior to construction. Construction activities resulting in fill also require a Section 401 Water Quality Certification from the RWQCB. Potential impacts to jurisdictional waters would be reduced through compliance with the regulatory process (i.e., Section 404 Permit and 401 Certification). In addition, filling of this drainage is subject to CDFW permitting requirements. Compliance with Mitigation Measure IV.b.1 would reduce potential impacts to a less-than-significant level.

Mitigation Measures: The following mitigation measure has been developed to reduce potential biological resource impacts to less-than-significant levels:

Mitigation Measure IV.b.1. Prior to issuance of a grading permit affecting any jurisdictional waters, including wetlands, as identified in the project wetland delineation, the project applicant shall obtain the following resource agency permits from the ACOE, CDFW, RWQCB, or any other applicable agency (i.e., USFWS) identified through the permitting process:

- Prior to any discharge of dredged or fill material into "waters of the U.S.", including wetlands, authorization under a Nationwide Permit or Individual Permit shall be obtained from the ACOE. For any features determined to not be subject to the ACOE jurisdiction during the verification process, authorization to discharge (or a waiver from regulation) shall be obtained from the RWQCB. For fill requiring an ACOE permit, water quality certification shall be obtained from the RWQCB prior to discharge of dredged or fill material.
- Prior to any activities that would obstruct the flow of, or alter the bed, channel, or bank of any intermittent or ephemeral creeks, notification of streambed alteration shall be submitted to the CDFW; and, if required, a 1602 streambed alteration agreement shall be obtained by the applicant.

- The project applicant shall achieve the mitigation for the permanent loss of streams, wetlands, and other waters through the purchase of mitigation credits at an agency-approved mitigation bank at a minimum 1:1 ratio, or through onsite/offsite habitat restoration at a minimum 3:1 ratio. All measures contained in the permits or associated with any agency approvals shall be implemented to the satisfaction of the lead regulatory agency.

c) Refer to response under item IV.b, above. Impacts would be less-than-significant with implementation of Mitigation Measure IV.b.1.

Mitigation Measures: Refer to Mitigation Measure IV.b.1, above.

d) The project would not interfere with any native resident or migratory fish or wildlife species, nor impede the use of native wildlife nursery sites. Implementation of Mitigation Measure IV.d.1 would ensure that impacts to nesting migratory birds or raptors would be less-than-significant.

Mitigation Measures: The following mitigation measure has been developed to reduce potential biological resource impacts to less-than-significant levels:

Mitigation Measure IV.d.1. Should the project require that vegetation be removed as part of construction activities, the following will occur to avoid impacts to nesting migratory birds or raptors that may be utilizing trees, shrubs or vegetative ground cover at the construction site (State of California Fish and Game Code Sections 3503 and 3503.5):

1. Vegetation removal should be implemented between September 1 to January 31 when birds are not nesting, OR
2. Should vegetation need to be removed from February 1 to August 31 (nesting season), then nesting bird surveys will be conducted by a qualified biologist no more than one week prior to vegetation removal during this period:
   a. If no nesting birds are located during the survey, then vegetation removal may proceed.
   b. Should the survey determine that an active nest is located in the vegetation to be removed during the survey, the biologist shall delineate a no disturbance buffer that is adequate to prevent nesting failure. No vegetation shall be removed within the buffer until the young have fledged, as determined through additional monitoring by a qualified biologist.
   c. Results of all nesting bird surveys, both positive and negative, will be sent to: The Department of Fish and Wildlife, ATTN: CEQA, 601 Locust Street, Redding, CA 96001.

e) The project would not conflict with any ordinances or policies which protect biological resources. Shasta County Board of Supervisors' Resolution No. 95-157 provides guidance regarding use and protection of oak trees on a voluntary basis. New road construction often introduces invasive botanical species to an area previously free of invasive species dominance. To minimize the potential for invasive plant species to be introduced onsite Mitigation Measure IV.e.1 is necessary. Impacts would be less-than-significant in this regard.

Mitigation Measures: The following mitigation measure has been developed to reduce potential biological resource impacts to less-than-significant levels:

Mitigation Measure IV.e.1. Grading plans prepared by the project applicant shall note the following construction specifications designed to avoid the introduction and spread of weeds:

- Using only certified weed-free erosion control materials, mulch, and seed.
- Precluding the use of rice straw in riparian areas.
- Limiting any import or export of fill material to material known to be weed free.
- Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the County. If the equipment has most recently been used within the County, cleaning is not required.
- Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility immediately upon termination of its use at the project site.
- The project contractor shall continuously comply with the above stated measures throughout the duration of onsite and offsite construction activities.

f) There are no adopted Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved local, regional, or State habitat conservation plans for the project site or project area. There would not be any conflict with local policies or ordinances protecting biological resources, nor with any habitat conservation plans. No impacts would occur in this regard.

Findings: In the course of the above evaluation, impacts associated with *Biological Resources* were found to be less-than-significant with the implementation of the mitigation measures.

V. CULTURAL RESOURCES: Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?				X
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		X		
c) Disturb any human remains, including those interred outside of formal cemeteries?				X

Discussion: The analysis in this section has been prepared in accordance with Section 15064.5 of the State CEQA Guidelines, which considers the potential impacts on prehistoric, historic, and paleontological resources. This section describes the potential cultural resources within the project study area, and the applicable regulations that govern those resources.

CEQA requires a lead agency to determine whether a project may have a significant effect on historical resources (Section 21084.1). If it can be demonstrated that a project will cause damage to resources Eligible for or Listed in the California Register of Historic Resources (CRHR), Tribal Cultural Resources (TCRs) and other resources on local County or Local lists, or those determined by the lead agency to be significant. The lead agency may require reasonable efforts be made to permit any or all of the resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (Section 21083.2[a], [b], and [c]).

PRC Section 5024.1 requires an evaluation of historical resources to determine their eligibility for listing in the CRHR. The purpose of the register is to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP, enumerated below. According to PRC Section 5024.1(c) (1–4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region or method of installation, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A historical resource is a resource listed in, or determined to be eligible for listing, in the CRHR (Section 21084.1), a resource included in a local register of historical resources (Section 15064.5[a][2]), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (Section 15064.5[a][3]).

A records search was conducted on May 16, 2018 at the Northeast Information Center (NEIC) at Chico State University. The search included a review of all known archaeological sites, studies, and isolates within a half-mile radius of the proposed project's Area of Potential Effect (APE). Additional sources were reviewed for the evaluation and a list is included in the Cultural Resources report. The records search and literature review for this study were done to (1) determine whether known cultural resources have been recorded within or adjacent to the study area and determine if the area of the proposed project has been subject to survey in the past; (2) assess the likelihood of unrecorded cultural resources based on archaeological, ethnographic, and historical documents and literature; and, (3) to review the distribution of nearby archaeological sites in relation to their environmental setting.

According to the records search, three cultural resource surveys were previously recorded within a half-mile radius of the APE, with only one survey completed within the APE. Recorded information shows that from the various surveys, several sites were recorded outside of the APE, but none were previously located within the proposed project APE.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) Based on the result of the Cultural Resource Inventory Report there are no National Register of Historic Places (NRHP) or CRHR sites located at the project, or within close proximity of the site, that would call for the retention of the historical structure or listing. Therefore, no impacts to historical resources would occur with implementation of the proposed project.

Mitigation Measures: No mitigation measures are required.

b) The project would not cause a substantial adverse change in the significance of an archaeological resource. A survey of the proposed project APE was conducted on August 13, 2018. The field inspection consisted of a complete walking inspection of the APE. The inspection was conducted in transect sweeps no more than 15 meters apart within the planned building pad areas and a more opportunistic survey pattern on the surrounding landforms which included generally steep topography limiting the likelihood for finding cultural resources. The ground surface was inspected for any historic or prehistoric cultural materials or features, and visibility was moderate to excellent with visibility limited in some areas due to duff and vegetation. The field inspection failed to discover any cultural resources (prehistoric or historic) within the area of the APE.

There is a possibility that cultural resources, including buried archaeological materials, could exist in the area and may be uncovered during the life time of the landfill. Therefore, if any resources are found during the construction of the proposed project, they will be mitigated through implementation of Mitigation Measure V.b.1 through Mitigation Measure V.b.3. Adherence to protocols established by Mitigation Measure V.b.1 through Mitigation Measure V.b.3 would serve to avoid impacts that would result in a substantial adverse change in the significance of an archaeological resource as defined in CEQA Guidelines Section 15064.5. Impacts would be less-than-significant with mitigation incorporated.

Mitigation Measures: The following mitigation measures have been developed to reduce potential impacts related to undocumented cultural resources to less-than-significant levels:

Mitigation Measure V.b.1. To determine if cultural resources may be present at the proposed action during ground disturbing activities, and take appropriate measures to protect these resources, Native American Tribal Monitors will be present during these ground disturbing activities. Ground disturbing activities are considered to be site grading, excavations for footings and foundations, and trenching for new pipelines. Should the Monitors determine previously unknown cultural resources are located at the site, the excavation activities will temporarily cease, and Mitigation Measure CR-2 will be implemented to determine appropriate action prior to resuming construction activities.

Mitigation Measure V.b.2. All work within 50 feet of an inadvertent discovery of a cultural/paleontological discovery shall be halted until a professional archaeologist, or paleontologist if the find is of a paleontological nature, and the Tribal Historic Preservation Officer (THPO) can evaluate the significance of the find in accordance with the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) criteria.

If any find is determined to be significant by the archaeologist, or paleontologist as appropriate, then the Tribe shall meet with the archaeologist, or paleontologist, to determine the appropriate course of action. If necessary, a Treatment Plan shall be prepared by an archeologist (or paleontologist), outlining recovery of the resource, analysis, and reporting of the find. The Treatment Plan shall be reviewed and approved by the THPO prior to resuming construction.

All significant cultural or paleontological materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist, or paleontologist, according to current professional standards.

Mitigation Measure V.b.3. If vertebrate fossils are discovered during construction activities, all work shall cease within 100 feet of the find until a qualified professional paleontologist as defined by the Society of Vertebrate Paleontology's Conformable Impact Mitigation Guidelines Committee (2011) can assess the nature and importance of the find and recommend appropriate treatment. The Tribe will also be notified of the discovery and the qualified professional paleontologist's opinion within 48 hours of the initial finding. Treatment may include preparation and recovery of fossil materials, so that they can be housed in an appropriate museum or university collection, and also may include preparation of a report for publication describing the finds. Construction activities shall not resume until after the qualified professional paleontologist has given clearance and evidence of such clearance has been submitted to the Tribe. All significant cultural or paleontological materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist, or paleontologist, according to current professional standards.

c) Pursuant to California Health and Safety Code Section 7050.5, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site until the coroner has determined if the remains are subject to his or her authority. If the coroner determines that human remains are not subject to his or her authority and recognizes or has reason to believe the remains to be those of a Native American, he or she shall contact the NAHC within 24 hours.

Findings: In the course of the above evaluation, impacts associated with *Cultural Resources* were found to be less-than-significant with the implementation of the mitigation measures.

VI. ENERGY: Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) The project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Compliance with local, State, and federal regulations (e.g., limit engine idling times, requirement for the recycling of construction debris, etc.) would reduce and/or minimize short-term energy demand during construction to the extent feasible, and construction would not result in a wasteful or inefficient use of energy. No new buildings or structures requiring electric power service or additional energy consumption are proposed. Project construction will require energy consumption in the form of fuel use for construction vehicles and heavy equipment. Fuel consumed during construction would be temporary in nature and would not represent a significant demand on available supplies. Therefore, this short-term is considered less-than-significant.

Mitigation Measures: No mitigation measures are required.

b) The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The project has no effect on the County's efforts to develop renewable energy sources for County facilities when practical. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Energy* were found to be less-than-significant.

VII. GEOLOGY AND SOILS: Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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 Publications 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?			X	
b) Result in substantial soil erosion or the loss of topsoil?			X	
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?			X	
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?			X	
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
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X

Discussion: The project site is located in unincorporated Shasta County approximately12 miles west of Burney. Shasta County is within the Cascade Range province which extends from Lassen Peak to British Columbia. The Cascade Range province is characterized by a north-south trending chain of large volcanoes that have been active in recent or historical times (Mt. St. Helens and Mt. Lassen). The Cascade province also includes lava plateaus, plug dome volcanoes, cinder cone volcanoes, ash beds and glacial deposits. Montgomery Creek is near the center of the Cascade province inside California, westerly of the Modoc Plateau and easterly of the Klamath Mountains/Great Valley Group. The area is surrounded by a watershed that through a series of reservoirs and lakes ends up discharging in the Sacramento River.

Regional geology consists is largely characterized by Pliocene volcanic (basalt) and Eocene non-marine sedimentary rocks (Lydon and others, 1960). Local volcanic deposits include basalt and minor pyroclastic deposits, while Eocene sedimentary rocks include sandstone, shale and moderately to well consolidated conglomerate (Montgomery Creek Formation). Faulting in the region tends to follow a north-south directional pattern and is Quaternary in age. The nearest mapped fault to the site is approximately 15 miles to the east (Woodward-Clyde Consultants 1987).

The Shasta County General Plan has identified that the project area has a General Plan overlay for seismic hazards and non-seismic hazards. A General plan is the citizen's development "blueprint" for development adopted by local government required by California law. Section 5.1 of the General Plan for Shasta County contains details about Seismic and Geologic Hazards in Shasta County which is divided into two main sections: seismic hazards (surface faulting, ground shaking and ground failure) and non-seismic hazards (volcanoes, erosion and expansive soils). The General Plan provides historical data and identifies areas of concern throughout Shasta County.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault;

There are no active faults mapped in the project vicinity. The California Geological Survey (CGS, 2018) has the responsibility for mapping active earthquake faults in California, through legislation referred to as the Alquist-Priolo Earthquake Fault Zoning Act. There are no Alquist-Priolo earthquake fault zones identified in close proximity to the project site; the nearest mapped active fault is located approximately 15 miles to the east (Woodward-Clyde Consultants 1987). There is no supplemental geologic data to suggest unmapped active faults in the region. Based on this existing information, there will be no impact to the project components from impacts related to surface fault rupture.

Mitigation Measures: No mitigation measures are required.

ii) Strong seismic ground shaking;

Although there are no known earthquake faults in the project vicinity, the entire northern California region is subject to the potential for moderate to strong seismic shaking due to distant seismic sources. Seismic shaking can be generated on faults many miles from the project vicinity. Renewed activity at Mt. Shasta or Mt. Lassen would presumably be associated with seismicity and potential strong ground shaking. Seismic shaking potential is, therefore, a regional hazard; the hazard is not higher or lower at the project site than throughout the region. Standard design and construction practices meeting current California Building Codes (where applicable) will provide adequate protection for the proposed project. The implementation of these standard building practices will result in less-than-significant impacts related seismic ground shaking in the area.

Mitigation Measures: No mitigation measures are required.

iii) Seismic-related ground failure, including liquefaction;

Seismic ground settlement is not considered a hazard at the site due to the density and composition of the underlying soils. A geotechnical investigation demonstrated the upper 3 to 5 feet of soil consisted primarily of firm to sandy clay, and gravelly clay underlain by large volcanic boulders.

Although located in a seismically active region (northern California), the project site is not likely to be subject to seismic shaking of adequate strength or duration to generate secondary seismic effects. Likely seismic sources are too far from the project site to generate sufficient long-duration strong shaking. Construction standards that meet the current California Building Codes (as applicable) will provide adequate protections and ensure less-than-significant impacts with respect to potential seismic-related ground failure and liquefaction for the area.

Mitigation Measures: No mitigation measures are required.

iv) Landslides.

Landslides occur throughout Shasta County, although they have not been considered a major problem. Landslides are more prevalent in the eastern and northern portions of the county and are commonly related to the sedimentary and volcanic rocks in these vicinities. There is a history of landslides in the Montgomery Creek Formation. Instability occurred as a result of poorly consolidated sedimentary rocks overlain by volcanics. The proposed project is located on low gradient slopes were landsliding is not of concern. Thus no landslides or other conditions of potential rapid geologic change are expected. There are no current or proposed structures at the site that might be subject to landslide issues. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) The design and construction of the proposed project shall comply with the statewide General Permit (Water Quality Order No. R5-2016-0040). The proposed project would be subject to the requirements of Shasta County Code Chapter 12.12 related to grading. In accordance with these requirements, the project applicant cannot perform grading activities without a grading permit. Compliance with the statewide General Permit and Shasta County Code Chapter 12.12 of would serve to ensure that short-term surface water quality impacts associated with soil erosion are minimized to less-than-significant levels.

Mitigation Measures: No mitigation measures are required.

c) On-site geotechnical investigations demonstrate that subsurface strata area associated with a medium to strong foundation (**Appendix D**). Test pits along the proposed road showed a shallow layer of silty topsoil above a plastic clay overlaying cobbles and boulders of basalt. As such, the proposed project is not located on soils that are prone to subsidence, collapse or liquefaction.

Standard project design and construction practices meeting current California Building Code will ensure that the construction of the project will not adversely affect site stability. Though the site has some alluvial soils, their coarse texture and rocky composition make them less susceptible to liquefaction; the potential for liquefaction (when combined with the low probability for seismic related events in the area) is considered to be less-than-significant. In addition, the existing topography of the site is predominantly level, with small undulations. The threat of landslides, lateral spreading, subsidence, liquefaction, or collapse is insignificant as the geology of the area demonstrates great stability.

Mitigation Measures: No mitigation measures are required.

d) Shasta County is characterized by moderate to low expansiveness in soils with small scattered areas of high expansiveness (**Appendix D**). In 2018, soil tests were performed along the proposed alignment. Red and grey clay found was tested for liquid limit and plasticity index. The results of this test show a liquid limit of 74 and a plasticity index of 45. Three test pits along the proposed alignment and discovered similar red and grey plastic clay throughout the project site, but decreasing in amount and saturation to the west. With a high liquid limit and medium to high plasticity the potential for expansion is very high. Project construction will be required to follow standard design protocols which account for soil plasticity and engineered fill qualities. Impacts are considered less-than-significant in this regard.

Mitigation Measures: No mitigation measures are required.

e) The project does not propose any wastewater facilities or the development of any on-site septic systems, therefore will be no impact.

Mitigation Measures: No mitigation measures are required.

f) The project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. No impacts would occur in this regard.

Findings: In the course of the above evaluation, impacts associated with *Geology and Soils* were found to be less-than-significant.

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

Discussion: Greenhouse gases (GHGs) are gases in the atmosphere that absorb and emit radiation. The greenhouse effect traps heat in the troposphere through a three-fold process, summarized as follows: short wave radiation emitted by the sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of longwave (thermal) radiation, and GHGs in the upper atmosphere absorb and emit this longwave radiation into space and toward the Earth. This "trapping" of the longwave radiation emitted back toward the Earth is the underlying process of the greenhouse effect. Other than water vapor, the primary GHGs contributing to global climate change include the following gases:

- Carbon dioxide (CO2), primarily a byproduct of fossil fuel combustion in stationary and mobile sources.
- Nitrous oxide (N2O), a byproduct of fuel combustion and also associated with agricultural operations such as the fertilization of crops;
- Methane (CH4), commonly created by off-gassing from agricultural practices (e.g., livestock), wastewater treatment, and landfill operations;
- Chlorofluorocarbons (CFCs), which were used as refrigerants, propellants, and cleaning solvents, although their production has been mostly prohibited by international treaty;
- Hydrofluorocarbons (HFCs), which are now widely used as a substitute for chlorofluorocarbons in refrigeration and cooling;
- Perfluorocarbons (PFCs) and sulfur hexafluoride (SF6) emissions, which are commonly created by industries such as aluminum production and semiconductor manufacturing.

Global climate change is not confined to a particular project area and is generally accepted as the consequence of GHG emissions from global industrialization over the last 200 years. A typical project, even a very large one, does not generate enough GHG emissions on its own to influence global climate change significantly; hence, the issue of global climate change is, by definition, a cumulative environmental impact.

California passed Assembly Bill 32 (Global Warming Solutions Act) in 2006, mandating a reduction in greenhouse gas (GHG) emissions and Senate Bill 97 in 2007, evaluating and addressing GHG under CEQA. On April 13, 2009, the Governor's Office of Planning and Research (OPR) submitted to the Secretary for Natural Resources its proposed amendments to the state CEQA Guidelines for GHG emissions, as required by Senate Bill 97 {Chapter 185, 2007} and they became effective March 18, 2010. As a result of these revisions to the CEQA Guidelines, lead agencies are obligated to determine whether a project's GHG emissions significantly affect the environment and to impose feasible mitigation to eliminate or substantially lessen any such significant effects. A lead agency is not responsible for wholly eliminating all GHG emissions from a project; the CEQA standard is to mitigate to a level that is "less-than-significant" or, in the case of cumulative impacts, less than cumulatively considerable (SMAQMD, 2018). In addition, a lead agency has the discretion to choose whether to conduct either a quantitative or qualitative analysis of GHG-related impacts.

The Global Warming Solutions Act (AB 32) also directed CARB to develop the Climate Change Scoping Plan (Scoping Plan), which outlines a set of actions to achieve the AB 32 goal of reducing GHG emissions to 1990 levels by 2020, and to maintain such reductions thereafter. CARB approved the Scoping Plan in 2008 and first updated it in May 2014. The second update in November 2017 also address the actions necessary to achieve the further GHG emissions reduction goal of reducing GHG emissions to 40 percent below 1990 levels by 2030, as described in Senate Bill 32 (SB 32). In addition, the 2017 Scoping Plan looks forward to the reduction goal of reducing emissions 80 percent under 1990 levels by 2050, as described in Executive Order S-3-05 (EO-S-3-05) (CARB, 2017).

It is noted that the California Air Resources Board (CARB) announced in July 2018, that the State has already met the AB 32 goal of reducing emissions to 1990 levels by 2020 approximately four years early (CARB, 2018). As stated in the Executive Summary of the 2018 Edition of the California Greenhouse Gas Emissions Inventory: 2000-2016:

> "The inventory for 2016 shows that California's GHG emissions continue to decrease, a trend observed since 2007. In 2016, emissions from routine GHG emitting activities statewide were 429 million metric tons of CO_2 equivalent ($MMTCO_2e$), 12 $MMTCO_2e$ lower than 2015 levels. This puts total emissions just below the 2020 target of 431 million metric tons. Emissions vary from year-to-year depending on the weather and other factors, but California will continue to implement its greenhouse gas reductions program to ensure the state remains on track to meet its climate targets in 2020 and beyond."

The project site is located in Shasta County and the Northern Sacramento Valley Air Basin (NSVAB) and is under the jurisdiction of the Shasta County Air Quality Management District (SCAQMD). Neither Shasta County nor the SCAQMD have adopted quantitative thresholds for determining the significance of GHG emissions. In 2010, the SCAQMD initiated the regional climate action planning (RCAP) process. The primary objectives of the RCAP process are to contribute to the State's climate protection efforts and to provide CEQA review streamlining benefits for development projects within the region's four jurisdictions: the City of Anderson, the City of Redding, the City of Shasta Lake, and the unincorporated areas of Shasta County. To facilitate these objectives, the SCAQMD worked with the four jurisdictions to prepare community-specific, independent climate action plans that contain GHG emission inventories and forecasts, emission reduction measures, and implementation and monitoring programs.

The Climate Action Plans (CAP) provide a summary of jurisdictional GHG inventories and describe how each jurisdiction will achieve GHG reductions through local actions that contribute to the statewide GHG emissions reduction target defined in AB 32, the California Global Warming Solutions Act of 2006, CEQA guidelines, and other State guidance. The RCAP document serves as a collection of the individual climate action plans and demonstrates the region's commitment to the State's GHG reduction efforts. The RCAP was finalized in 2012, although not adopted by the SCAQMD. Chapter 2 of the RCAP serves as the CAP for the unincorporated areas within the County, including the project site (Shasta County, 2012). The GHG reduction measures developed for the unincorporated areas of the County are primarily intended for land use projects (e.g., housing, commercial, etc.), and are not applicable to reducing the emissions associated with road construction projects. Since the RCAP was never adopted by the SCAQMD, and the reduction measures in the RCAP are not applicable to the proposed project, it is proposed to conduct a quantitative analysis of the proposed project's GHG emissions impacts instead of a qualitative analysis of consistency with the RCAP.

As noted above, quantitative thresholds for determining the significance of GHG emissions have not been adopted by either Shasta County or the SCAQMD. In the absence of quantitative thresholds, CEQA practitioners often use thresholds and guidance provided by other air districts in the State. In the Sacramento Valley Air Basin (SVAB), a commonly used GHG significance threshold is 1,100 metric tons of CO_2e per year ($MTCO_2e$/yr) (SMAQMD, 2018). This threshold is used by the Sacramento Metropolitan Air Quality Management District (SMAQMD) for analyzing GHG emissions from both construction and operational activity. This threshold was developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to GHG emissions reduction goals of AB 32, SB 32, the Scoping Plan, and Executive Orders (SMAQMD, 2018). The 1,100 $MTCO_2e$/yr threshold is also used by several other air districts in the State including the Bay Area Air Quality Management District and the Mendocino County Air Quality Management District. As such, this threshold has been adopted for use in the SVAB and is one of the most used thresholds in the State for analyzing the potential impacts of construction and operational GHG emissions. For the reasons noted above, the threshold of 1,100 $MTCO_2e$/yr is used to evaluate the proposed project's construction and operational GHG emissions. The use of this quantitative project-specific threshold by Shasta County, as lead agency, would be consistent with certain practices of other lead agencies in the SVAB and throughout the State of California. If the threshold is exceeded, then the project would have a cumulatively considerable contribution to a significant cumulative environmental impact and would conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing GHG emissions.

Based on these comments, the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) The project proposes to construct and reconstruct approximately 0.73 miles of Hardin Road and widen approximately 0.25 miles of SR-299 to provide for a new left turn lane. The proposed project would primarily generate direct GHG emissions from short-term construction activities.

   Both construction and operational GHG emissions for the proposed project were estimated using the California Emissions Estimator Model (CalEEMod), which is a statewide land-use emissions computer model designed to provide a uniform platform for government agencies to quantify potential criteria air pollutants and greenhouse gas emissions associated with both construction and operations from a variety of land use projects. The model applies inherent default values for various land uses, including trip generation rates based on the Institute of Transportation Engineers (ITE) Manual, vehicle mix, trip length, average speed, etc. However, where project-specific data is available, such data should be manually inputted into the model. Table 7 presents the estimates of unmitigated GHG emissions from the proposed project and compares project related GHG emissions to the 1,100 $MTCO_2e$/yr threshold of significance.

   Construction Emissions. Project construction activities would result in a temporary increase in GHG emissions, including exhaust emissions from on-road haul trucks, worker commute vehicles, and off-road heavy-duty equipment. It is estimated that construction activity for the proposed project would occur over approximately four months. As noted in Table 7, the proposed project would generate approximately 106.4 $MTCO_2e$ of GHG emissions without mitigation during the construction period (CAPCOA, 2016).

   Operational Emissions. Since the proposed project is a road construction project, it would primarily generate direct GHG emissions from short-term construction activities. Operational emissions would be very limited and would be related to minor maintenance activities. As noted in Table 7, the proposed project would generate approximately 0.00008 $MTCO_2e$/yr of operational GHG emissions without mitigation (CAPCOA, 2016).

Table 7
Unmitigated GHG Emissions (Annual Metric Tons Per Year)

Phase	GHG Emissions ($MTCO_2e$/yr)	Threshold of Significance ($MTCO_2e$/yr)	Significant Impact
Construction	106.4	1,100	No
Operation	0.00008	1,100	No

As shown in Table 7, the construction and operational GHG emissions from the proposed project are well below the threshold of significance. As such, construction and operational emissions from the proposed project would be less-than-significant and no mitigation is required. Therefore, construction and operation of the proposed project would not generate GHG emissions that would result in a cumulatively considerable contribution to a significant cumulative environmental impact.

Mitigation Measures: No mitigation measures are required.

b) The project proposes to construct and reconstruct approximately 0.73 miles of Hardin Road and widen approximately 0.25 miles of SR-299 to provide for a new left turn lane. As noted above, the proposed project would primarily generate direct GHG emissions from short-term construction activities.

A GHG impact would be significant if GHG emissions from the proposed project would conflict with an applicable plan, policy, or regulation for the purpose of reducing GHG emissions. As noted in the Setting, the Regional Climate Action Plan prepared by the SCAQMD in 2012 was not adopted and the reduction measures in the Plan are not applicable to a road construction project. As such, for the proposed project, it is analyzed whether the emissions obstruct compliance with the GHG emission reduction goals in Assembly Bill (AB 32), Senate Bill 32 (SB 32), and Executive Order S-3-05 (EO S-3-05). As stated in the Setting, to the extent that the proposed project does not exceed the threshold of significance of 1,100 $MTCO_2e$/yr, it would not have a cumulatively considerable contribution to a significant cumulative environmental impact and would not result in a conflict with GHG reduction plans.

As discussed above, GHG emissions from the proposed project's construction and operational activity are well below the threshold of significance of 1,100 $MTCO_2e$/yr. As noted in the Setting, this threshold was developed to ensure at least 90 percent of new GHG emissions would be reviewed and assessed for mitigation, thereby contributing to GHG emissions reduction goals of AB 32, SB 32, the Scoping Plan, and Executive Orders (SMAQMD, 2018). Therefore, construction and operational emissions from the proposed project would be less-than-significant and would not result in a conflict with the GHG emission reduction goals in Assembly Bill (AB 32), Senate Bill 32 (SB 32), and Executive Order S-3-05 (EO S-3-05).

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Greenhouse Gas Emissions* were found to be less-than-significant.

IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?				X
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?		X		
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
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?				X
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
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?		X		

Discussion: Hazards are those physical safety factors that can cause injury or death, and while by themselves in isolation may not pose a significant safety hazard to the public, when combined with development of projects can exacerbate hazardous conditions. The California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program (FRAP), delineates the project area as a part of a designated "Very High Fire Hazard Severity Zone" (VHFHSZ). The FRAP designates lands in three general classifications, "Moderate", "High" and "Very High" Fire Hazard Severity Zones. Fire suppression for the area is provided by a

combination of first responders such as CAL FIRE (designated as a State Responsibility Area) with additional fire fighting support from Montgomery Creek Shasta County Fire Department- Company 71 station located approximately 3.2 miles from the site, there is one parcel of land that is designated as a Federal Responsibility Area, however it is covered by the Geographic Area Coordination Center which coordinates interagency incident support.

Hazardous materials are typically chemicals or processes that are used or generated by a project that could pose harm to people, working at the site or on adjacent areas. Many of these chemicals can cause hazardous conditions to occur should they be improperly disposed of or accidentally spilled as part of project development or operations. Hazardous materials are also those listed as hazardous pursuant to Government Code Section 65962.5.

The Shasta County Environmental Health Division (EHD) is the administering agency and the Certified Unified Program Agency (CUPA) for Shasta County with responsibility for regulating hazardous materials handlers, hazardous waste generators, underground storage tank facilities, above ground storage tanks, and stationary sources handling regulated substances. A Hazardous Materials Business Plan (HMBP) is required of businesses in Shasta County that handle, use, generate, or store hazardous materials. The primary purpose of this plan is to provide readily available information regarding the location, type and health risks of hazardous materials to emergency response personnel, authorized government officials, and the public. Large cases of hazardous materials contamination or violations are referred to the Central Valley Regional Water Quality Control Board (RWQCB) and the California Department of Toxic Substances Control (DTSC).

Under Government Code Section 65962.5, both the DTSC and the State Water Resources Control Board (SWRCB) are required to maintain lists of sites known to have hazardous substances present in the environment. Both agencies maintain up-to-date lists on their websites. A search of the DTSC and SWRCB lists identified no open cases of hazardous waste violations within one-mile of the project site.

The EPA maintains the Enforcement and Compliance History Online (ECHO) program. The ECHO website provides environmental regulatory compliance and enforcement information for approximately 800,000 regulated facilities nationwide. The ECHO website includes environmental permit, inspection, violation, enforcement action, and penalty information about EPA-regulated facilities. Facilities included on the site are Clean Air Act (CAA) stationary sources; Clean Water Act (CWA) facilities with direct discharge permits, under the National Pollutant Discharge Elimination System; generators and handlers of hazardous waste, regulated under the Resource Conservation and Recovery Act (RCRA); and public drinking water systems, regulated under the Safe Drinking Water Act (SDWA). ECHO also includes information about EPA cases under other environmental statutes. When available, information is provided on surrounding demographics, and ECHO includes other EPA environmental data sets to provide additional context for analyses, such as Toxics Release Inventory data. According to the ECHO program, the project site is not listed as having a hazardous materials violation.

Lead Based-Paints

Until 1978, when the U.S Consumer Product Safety Commission (CPSC) phased out the sale and distribution of residential paint containing lead, many homes were treated with paint containing some amount of lead. It is estimated that over 80 percent of all housing built prior to 1978 contains some LBP. The mere presence of lead in paint may not constitute a material to be considered hazardous. In fact, if in good condition (no flaking or pealing), most intact LBP is not considered to be a hazardous material. In poor condition, LBPs can create a potential health hazard for building occupants, especially children. LBPs are commonly known to be used in building materials for bridge structures. In addition, LBPs were commonly used in traffic striping materials before the discontinued use of lead chromate pigment in traffic striping/marking materials and hot-melt thermoplastic stripe materials (discontinued in 1996 and 2004, respectively).

Aerially Deposited Lead

Until the mid-1980s, gasoline and other fuels contained lead, a toxic metal. As each car or truck traveled highways and roads, tiny particles of lead were released in the exhaust and settled on the soils next to the road. Most of the time, lead tends not to move very far or fast in the environment. Caltrans has sampled sediment adjacent to traffic lanes in major metropolitan areas and determined that lead from leaded gasoline emissions is present. Elevated lead levels have been found to be highest at the surface (zero to six inches) and decreases with depth. Levels are highest immediately adjacent to the traveled way and decreases with distance from the road. Total lead levels on average are not greater that the Total Threshold Limit Concentration (TTLC) but will often exceed the Soluble Threshold Limit Concentration (STLC) found in Title 22, California Code of Regulations (CCR). The construction process of excavation, stockpiling, transporting, and disposing of material (i.e., soils), which exceeds the STLC for lead, makes the material a hazardous waste. If the material exceeds the Threshold Concentration Leaching Potential (TCLP) test limits for lead, it is considered a Federal hazardous waste. However, tests conducted by Caltrans have concluded that materials excavated adjacent to freeways rarely exceed the TCLP threshold.

Based on these comments, the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the

project, observations on the project site and in the vicinity, the following determinations can be made:

a) Businesses that store hazardous materials are subject to the County's HMBP program, which is regulated by the Shasta County EHD as part of the Certified Unified Program. The program requires the preparation of a document that provides an inventory of hazardous materials onsite, emergency plans and procedures in the event of an accidental release, and training for employees on safety procedures for handling hazardous materials and in the event of a release or threatened release. These plans are routine documents that are intended to disclose the presence of hazardous materials and provide information on what to do if materials are inadvertently released. As a local access road, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) Potential construction-related hazards could be created during construction given that construction activities involve the use of heavy equipment, which uses small and incidental amounts of oils and fuels and other potentially flammable substances. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials used during construction. The construction contractor would be required to use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and federal law. Implementation of Mitigation Measure IX.b.1, Mitigation Measure IX.b.2, and Mitigation Measure IX.b.3 would serve to reduce the potential for the release of hazardous materials into the environment. Impacts are considered less-than-significant in this regard.

Lead Based Paints

Construction activities may result in the disturbance of traffic striping materials. The generated wastes would be disposed of at an appropriate, permitted disposal facility as determined by a lead specialist as noted in Mitigation Measure IX.b.44. Impacts would be less-than-significant in this regard.

Aerially Deposited Lead

There is the potential for aerially deposited lead to be present in soils adjacent to SR-299 where the proposed roadway will join the highway. Implementation of Mitigation Measure HAZ-4, would serve to reduce the potential for the release of hazardous materials into the environment. Impacts are considered less-than-significant in this regard.

Mitigation Measures: The following mitigation measure has been developed to reduce potential impacts related to hazardous materials to less-than-significant levels:

Mitigation Measure IX.b.1. The following measures shall be included as written Standard Operating Procedures (SOPs) for filling and servicing construction equipment and vehicles. The SOPs, which are designed to reduce the potential for incidents involving hazardous materials, shall include the following:

- Refueling shall be conducted only with approved pumps, hoses, and nozzles;
- Catch pans shall be placed under equipment to catch potential spills during servicing;
- All disconnected hoses shall be placed in containers to collect residual fuel from the hose;
- Vehicle engines shall be shut down during refueling;
- No smoking, open flames, or welding shall be allowed in refueling or service areas;
- Refueling shall be performed away from bodies of water to prevent contamination of water in the event of a leak or spill;
- Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents;
- Should a spill contaminate soil, the soil shall be put into containers and disposed of in accordance with Tribal and Federal regulations;
- All containers used to store hazardous materials shall be inspected at least once per week for signs of leaking or failure. All maintenance and refueling areas shall be inspected monthly. Results of inspections shall be recorded in a logbook that would be maintained on site; and
- The amount of hazardous materials used in the construction and operation shall be consistently kept at the lowest volumes needed.

During construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to,

vehicles and heavy equipment.

Mitigation Measure IX.b.2. If during grading or soil excavation, evidence of petroleum products is discovered and appears to continue below the ground surface, construction activities shall stop immediately and sampling shall be performed to characterize the extent of contamination. If applicable, remediation shall include removal of soil and proper disposal at an approved facility.

Mitigation Measure IX.b.3. If unknown wastes or suspect materials, including groundwater, are discovered during construction by the contractor, all excavation activities in the immediate vicinity of the area of concern shall be suspended. The Tribe, in conjunction with other appropriate agencies, shall develop a plan to investigate suspect materials and determine what corrective measures, if any, may be required to safeguard public health and the environment.

Mitigation Measure IX.b.4. Prior to construction, areas of exposed soils within the operating right-of-way of SR-299, which will be disturbed during project excavation/grading activities, shall be sampled and tested for lead so that any special handling, treatment, or disposal provisions associated with aerially deposited lead may be included in construction documents (if aerially deposited lead is present). Traffic striping waste shall be disposed of at an appropriate permitted disposal facility.

c) The nearest school to the project area is Montgomery Creek Elementary school which is approximately 0.6 miles from the project site. The nearest junior and senior high schools are located in Burney which is approximately 15 miles to the north east. The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

d) The project is not located on a site which is included on a list of hazardous materials sites and would not create a significant hazard to the public or the environment. The project site is not included on the list of hazardous materials sites compiled by the California Department of Toxic Substances Control. There is no historical evidence of any commercial activity on the site that would have used hazardous materials. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

e) The nearest airport is the Fall River Mills Airport which is approximately 27 miles to the north east. The project is not located within an airport land use plan or within two miles of a public airport or public use airport. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

f) The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Some traffic delays can be expected during project construction; however, the traffic impacts during construction are temporary in nature and will cease upon completion of construction activities. A Traffic Management Plan (TMP) is required to be developed by the Tribe and approved by the Shasta County Public Works Department (and Caltrans for work occurring within the right-of-way of SR-299) prior to the initiation of any construction activities to minimize disruption to existing traffic flow conditions. Refer to Section XVII, *Transportation*, below. Impacts are considered less-than-significant in this regard.

Mitigation Measures: No mitigation measures are required.

g) The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. The risk of potential ignitions resulting from construction activities onsite would be considered low for the existing disturbed areas of the alignment. Heat or sparks from construction equipment or vehicles, as well as the use of flammable materials, have the potential to ignite adjacent vegetation and start a fire, especially during weather events that include low humidity and high wind speeds that are typically experienced in the summer and fall. The following construction-related equipment and practices have the potential to generate heat or sparks that could result in wildfire ignition:

- Earth-moving and excavating equipment, chainsaws and other small gas-powered equipment and tools can cause sparks which serve as a source of fire ignition.
- Tractors, graders, mowers, bulldozers, backhoes, cranes, excavators, trucks, and vehicles may result in heated exhaust which, if it they came into contact with vegetation, may result in fire ignition.
- Welders consist of an open heat source which may result in metallic sparks which could ignite vegetation.

As with the entire project, fire risk is of highest concern for all of Shasta County and surrounding area. Research as indicated that approximately 95% of all wildfire ignitions are controlled during initial attack (Smalley 2008). The potential risk of wildfire

ignition and spread associated with onsite mining activities can be managed and preplanned so that the potential for vegetation ignition along excavation interfaces is reduced by having adequate water available to service operational activities; preparing and implementing a fire prevention plan; providing proper wildfire awareness, reporting, and suppression training to all personnel. Fire awareness, reporting, and suppression training for construction workers not only can result in a lower probability of ignition, but also can result in higher a probability of fire control and extinguishment during its initial stages.

As required by Mitigation Measure Ix.g.1 the Tribe or contractor will prepare a Fire Preparation and Response Plan that will address personnel protection, protection of property, risk management, fire weather watch provisions, red flag warnings, and post-fire safety provisions. With implementation of Mitigation Measure IX.g.1, construction impacts related to wildfire hazards are considered to be less-than-significant.

Mitigation Measures: The following mitigation measure has been developed to reduce potential impacts related to hazardous materials to less-than-significant levels:

Mitigation Measure IX.g.1. The Tribe or contractor shall prepare a Fire Preparation and Response Plan in coordination with CAL FIRE and the Shasta County Fire Marshal that shall include, but not be limited to, the following:

- During wildfire events, or extreme weather conditions where a combination of high heat and humidity and prevailing winds pose a very high fire danger, the project contractor shall cease construction activities upon being notified by CAL FIRE, the Shasta County Fire Marshal, or the Shasta County Sheriff's Office. Construction activities shall not commence until clearance is provided by any of these agencies.
- In the event on an onsite or offsite emergency all personnel will be notified and appropriately directed in accordance with the onsite evacuation plan.
- During wildfire events in the region that could potentially require evacuation by area residents, construction activities cease until notified by one of the following agencies: CAL FIRE, Shasta County Fire Marshal, or Shasta County Sheriff's Office. Construction operations shall not commence until clearance is given by any of these agencies.
- The Fire Preparation and Response Plan shall be maintained onsite throughout the duration of construction activities and shall outline the necessary fire suppression to maintained onsite (i.e., temporary water storage, fire extinguishers, shovels, etc.).
- The Fire Preparation and Response Plan shall be provided to and approved by the Shasta County Fire Marshal prior to commencing onsite construction.

Findings: In the course of the above evaluation, impacts associated with *Hazards and Hazardous Materials* were found to be less-than-significant with mitigation incorporated.

X. HYDROLOGY AND WATER QUALITY: Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?		X		
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.			X	
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 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 flows?			X	
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e) Conflict with or obstruct implementation of a water quality control plan or sustainable management plan?			X	

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) The State Water Resources Control Board (SWRCB) is responsible for implementing the Clean Water Act and has issued a statewide General Permit (Water Quality Order 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-006-DWQ) for construction activities within the State. The State General Construction Activity Storm Water Permit (CGP) is implemented and enforced by the Regional Water Quality Control Boards (RWQCBs). The CGP applies to construction activity that disturbs one acre or more, and requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that identifies Best Management Practices (BMPs) to minimize pollutants from discharging from the construction site to the maximum extent practicable. The BMPs, that must be implemented, can be categorized into two major categories: 1) erosion and sediment control BMPs, and 2) non-storm water management and materials management BMPs. Erosion and sediment control BMPs fall into four main subcategories: Erosion controls; Sediment controls; Wind Erosion controls; and Tracking controls.

Erosion controls include practices to stabilize soil, in order to protect the soil in its existing location and prevent soil particles from migration. Examples of erosion control BMPs are: preserving existing vegetation, mulching and hydroseeding. Sediment controls are practices to collect soil particles after they have migrated, but before the sediment leaves the site. Examples of sediment control BMPs are: street sweeping, fiber rolls, silt fencing, gravel bags, sand bags, storm drain inlet protection, sediment traps and detention basins. Wind erosion controls prevent soil particles from leaving the site in the air. Examples of wind erosion control BMPs include: applying water or other dust suppressants to exposed soils on the site. Tracking controls prevent sediment from being tracked off site via vehicles leaving the site to the extent practicable.

A stabilized construction entrance not only limits the access points to the construction site, but also functions to partially remove sediment from vehicles prior to leaving the site. Non-storm water management and material management controls reduce non-sediment related pollutants from potentially leaving the construction site to the extent practicable. The CGP prohibits the discharge of materials other than storm water and authorized non-storm water discharges (such as irrigation and pipe flushing and testing). Non-storm water BMPs tend to be management practices with the purpose of preventing storm water from coming into contact with potential pollutants. Examples of non-storm water BMPs include: preventing illicit discharges and implementing good practices for vehicle and equipment maintenance, cleaning and fueling operations, such as using drip pans under vehicles. Waste and materials management BMPs include implementing practices and procedures to prevent pollution from materials used on construction sites. Examples of materials management BMPs include:

- Good housekeeping activities, such as covering stored materials and elevating them off the ground, in a central location.
- Securely locating portable toilets away from the storm drainage system and performing routine maintenance.
- Providing a central location for concrete wash out and performing routine maintenance.
- Providing several dumpsters and trash cans throughout the construction site for litter/floatable management.
- Covering and/or containing stockpiled materials and overall good housekeeping on the site.

The SWRCB has also adopted a statewide general permit (Water Quality Order No. R-5-2016-0040) for small MS4s covered under the CWA to efficiently regulate numerous storm water discharges under a single permit. Permittees must meet the requirements in Provision D of the General Permit which require the development and implementation of a Storm Water Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable. The SWMP must include the following six minimum control measures:

- Public Education and Outreach on Storm Water Impacts
- Public Involvement/Participation
- Illicit Discharge Detection and Elimination
- Construction Site Storm Water Runoff Control
- Post-Construction Storm Water Management in New Development
- Redevelopment and Pollution Prevention/Good Housekeeping for Municipal Operations

The design and construction of the proposed project shall comply with the statewide General Permit (Water Quality Order No. R5-2016-0040). The proposed project would be subject to the requirements of Shasta County Code Chapter 12.12 related to grading. In accordance with these requirements, the project applicant cannot perform grading activities without a grading permit. Compliance with the statewide General Permit and Shasta County Code Chapter 12.12 of would serve to ensure that short-term surface water quality impacts are minimized to less-than-significant levels. Mitigation Measure X.a.1 and Mitigation Measure X.a.2 require preparation and implementation of a SWPPP, including BMPs to protect water quality. Implementation of these measures, including Mitigation Measure X.a.3 related to development of a post construction storm water management plan, would reduce potential construction-related impacts on water quality to a less-than-significant level by implementing SWPPP and BMPs to ensure that water quality standard and waste discharge requirements are not violated. Impacts would be less-than-significant.

Mitigation Measures: The following mitigation measures have been developed to reduce potential hydrology and water quality impacts to less-than-significant levels:

Mitigation Measure X.a.1. Prior to any ground-disturbing activities begin, the contractor shall apply for and maintain coverage under the General Construction Storm Water Permit. The contractor shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), including an erosion control plan that includes erosion control measures and construction waste containment measures to ensure that waters of the United States and the State are protected during and after project construction. The SWPPP shall include site design measures to minimize offsite stormwater runoff that might otherwise affect surrounding habitats. The Central Valley RWQCB will review and monitor the effectiveness of the SWPPP through mandatory reporting by the County and the contractor as required.

The SWPPP shall be prepared with the following objectives: (a) identify all pollutant sources, including sources of sediment, that may affect the quality of stormwater discharges from the construction of the project; (b) identify BMPs that effectively reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the site during construction to the Best Available Technology/Best Control Technology standard; (c) provide calculations and design details as well as BMP controls for site run-on that are complete and correct; (d) identify project discharge points and receiving waters; and (e) provide stabilization BMPs to reduce or eliminate pollutants following construction.

Mitigation Measures X.a.2. The contractor shall implement the Storm Water Pollution Prevention Plan (SWPPP), including all BMPs, and perform inspections of all BMPs during construction. Potential SWPPP BMPs could include, but would not be limited to the following:

- Preserve existing vegetation where possible;
- Surface roughening of final grades to prevent erosion, decrease run-off, increase infiltration, and aid in vegetation establishment;
- Riparian buffers or filter strips along the perimeter of the disturbed area to intercept pollutants prior to offsite discharge;
- Placing fiber rolls around onsite drain inlets to prevent sediment and construction-related debris from entering inlets;
- Placing fiber rolls along down-gradient disturbed areas of the site to reduce runoff flow velocities and prevent sediment from leaving the site;
- Placing silt fences down-gradient of disturbed areas to slow down runoff and retain sediment;
- Stabilizing the construction entrance to reduce the tracking of mud and dirt onto public roads by construction vehicles;
- Staging excavated and stored construction materials and soil stockpiles in stable areas and covering materials to prevent erosion; and
- Stabilizing temporary construction entrances to limit transport/introduction of invasive species and control fugitive dust emissions.

Mitigation Measure X.a.3. Prior to issuance of a grading permit, the project applicant shall submit a final post construction storm water management plan to the County concurrent with site improvement plans. The report shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: A written text addressing existing conditions, the effects of the proposed improvements, all appropriate calculations, watershed maps, changes in flows and patterns, and proposed on- and offsite improvements and drainage easements to accommodate flows from this project. The report shall identify water quality protection features and methods to be used during construction, as well as long-term post-construction water quality measures.

b) The construction of the proposed project would not increase the demand for groundwater resources, as the road projects would simply improve access to the immediate vicinity and does not require the use of existing or new groundwater resources for its operation and development. The proposed project does not include the installation of any new wells, would not upgrade the existing water wells or water infrastructure, and would not cause new development to require additional or new water supplies. As a result, the proposed project would not substantially deplete decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Impacts are less-than-significant in this regard.

Mitigation Measures: No mitigation measures are required.

c) The project would not substantially alter the existing drainage pattern of the site or area, or add significant 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 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; and or (iv) impede or redirect flows.

The proposed new road infrastructure would provide for the adequate passage of surface waters, including road drainage ditches and cross-drains and culverts in local ephemeral drainages, subject to regulatory permits. The drainage pattern will not be altered. Drainage will be dispersed to either the unimproved areas or landscape areas adjacent to the building and the parking areas. The runoff will sheet flow into the existing drainage channels on the site. This will preserve the existing drainage pattern and not require alteration of the natural drainage courses. Impacts are less-than-significant in this regard.

Mitigation Measures: No mitigation measures are required.

d) The location of the project site is in an area where inundation from dam failures would not occur. In addition, there are no levees near the proposed project. The threat of a tsunami wave is not applicable to inland areas; there is no potential for the generation of a seiche. No impact has been identified.

Mitigation Measures: No mitigation measures are required.

e) The project would not conflict with or obstruct implementation of a water quality control plan or sustainable management plan. Refer to response under Item X.b, above. Impacts are less-than-significant in this regard.

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Hydrology and Water Quality* were found to be less-than-significant with mitigation incorporated.

XI. LAND USE AND PLANNING: Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Physically divide an established community?				X
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

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following findings can be made:

a) Development of the proposed project would occur on lands that have been placed into Trust for the Pit River Tribe and lands that are privately held (Fee Title). The Trust lands have been previously transferred to federal ownership and held in Trust by the BIA for the Tribe. These lands were transferred to Trust status for future residential and economic development of the Tribe. The removal of the lands from fee-title to Trust lands also removed them from local zoning restrictions. The project as proposed would reconstruct approximately 800 feet of existing road on Trust lands. Reconstruction of the existing road would have no impact on the land use on Trust lands, as the road currently exists. Additionally, the reconstruction would actually provide a greater benefit to the Tribe as it would allow for better access and easier future development of Tribal lands in the area.

Development of the remainder of the project area would include approximately 1,100 feet of new construction and 1,950 feet of reconstruction of Hardin Road on private lands (including private land owned by the Pit River Tribe). Improvements to SR-299 would include approximately 1,300 feet of construction to add a new left turn lane directing traffic onto the new section of Hardin Road. This road work would not have an impact on land uses in the area, as the proposed project seeks to provide upgraded roads to the ones currently in-place, enhancing local access to current and future residents.

Lands would remain in their current ownership (Tribal Trust and private) and would be available for future development activities consistent with the Tribes need for economic development on Trust lands and development activities allowed for by the County General Plan. Road easements would be secured by the Tribe from other private property owners for reconstruction of Hardin Road on their lands. The project would not physically divide an established community. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) The project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The project is consistent with the Rural Residential A General Plan land use designation and the zoning of each parcel that makes up the roadway alignment. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Land Use and Planning* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

XII. MINERAL RESOURCES: Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?				X
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

Discussion: A mineral resource is land on which known deposits of commercially viable mineral or aggregate deposits exist. The designation is applied to sites determined by the State Division of Mines and Geology as being a resource of regional significance and is intended to help maintain any quarrying operations and protect them from encroachment of incompatible uses. There are no known mineral resources of regional value located on or near the proposed project.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) The project would not 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. There are no known mineral resources of regional value located on or near the project site. No impacts would occur in this regard.

   Mitigation Measures: No mitigation measures are required.

b) The project would not 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. The project site is not identified in the General Plan Minerals Element as containing a locally-important mineral resource. There is no other land use plan which addresses minerals. No impacts would occur in this regard.

   Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Mineral Resources* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

XIII. NOISE: Would the project result in:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?		X		
b) Generation of excessive groundborne vibration or groundborne noise levels				X
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

Discussion: Noise impacts are those that exceed general plan or other local ordinances developed to provide reasonable control of noise to residences, parks, open spaces and other specific designated sites. Noise sources typically include roadways, freeways, schools, industrial and commercial operations and other facilities that can generate noise. The Shasta County General Plan Noise Element provides guidelines and direction for noise sources and attenuation requirements for various uses.

Noise is generally defined as unwanted sound. This is especially true of sound from vehicles, aircraft arriving and departing, factories, and other areas that produce sound from their operations. For those living close to a noise-generating facility (freeway, factory, airport, etc.) the noise is generally considered excessive. In general, the further away a person is from a noise generating source, the less significant that source is. Sound is generally measured in A-weighted decibels (dB(A)) where the weighting corrects for the relative

frequency response of the human ear. Zero is the lowest sound level detectable by the human ear. As an example, 10 dB(A) is representative of human breathing, and people generally consider loud noise at about 60 dB(A), though individual tolerances vary. Automobile traffic is rated at 55 dB(A) at 100 feet. Sound decreases 6 dB(A) for every doubling of the distance in an open field. For example, a source giving a reading of 60 dB(A) at 200 feet from the source, will be reduced to 54 dB(A) at 400 feet and to 48 dB(A) at 800 feet.

Sensitive receptors are those that are particularly sensitive to noise such as residential dwellings, schools, hospitals and similar facilities. Noise impacts to these sensitive receptors can be significant during daytime periods (when schools are in session) or during nighttime periods when the expectation for quiet periods is expected and required for sleep, rest and relaxation.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) The nearest sensitive receptors to the project area are the residential dwellings on private lands adjacent to the Hardin Road reconstruction portion of the proposed project. The proposed alignment is located approximately 50 feet from to the east the nearest residential dwelling, and existing vehicle noise at the nearest residence is estimated to be about 55 dB(A) at the exterior of the residence, for both day and nighttime conditions. Shasta County has determined (through their General Plan) that the maximum allowable noise exposure for transportation noise sources (such as automobile traffic) is 60 dB(A) (Shasta County, 2004). Traffic is infrequent on Hardin Road as it only serves the existing residences and the existing Tribal subdivision. Existing noise generated SR-299 is heard as background noise at existing residences. Both transportation noise sources (Hardin Road and SR-299) produce noise at the existing residences at less than the maximum allowable levels of the County's General Plan.

Construction activities would begin at one end of the proposed project and subsequently proceed along the alignment as the construction process progresses. Therefore, construction would not occur in any one location for an extended period of time. Construction of the proposed project would be subject to compliance with the implementing policies of the Shasta County General Plan Noise Element. Additionally, implementation of Mitigation Measure N-1 would reduce construction noise associated with future development by ensuring that proper operating procedures are followed during construction so that nearby sensitive receptors are not adversely affected by noise (i.e., pursuant to the Shasta County General Plan). Therefore, following compliance with the Shasta County General Plan and implementation of Mitigation Measure XIII.a.1, impacts would be less-than-significant.

Mitigation Measures: The following mitigation measure has been developed to reduce potential noise impacts to less-than-significant levels:

Mitigation Measure XIII.a.1. In addition to permitted hours of operation, project grading and construction plans shall include the following noise control measures to be implemented by the project contractor throughout the duration of on-site construction activities. The plans shall be subject to the review and concurrence of the Shasta County Department of Resource Management that the project complies with the following:

- Fixed construction equipment such as compressors and generators shall be placed the greatest possible distance from sensitive receptors, but no closer than 200 feet from existing residential structures.
- All impact tools shall be shrouded or shielded, and all intake and exhaust ports on power construction equipment shall be muffled or shielded.

c) Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of the construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. Groundborne vibrations from construction activities rarely reach levels that damage structures. The Federal Transit Administration (FTA) has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 inch/second) appears to be conservative. The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 25 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. Future construction activities that may occur within the project area have the potential to generate low levels of groundborne vibration. Table 8 identifies various vibration velocity levels for types of construction equipment.

Table 8

Typical Vibration Levels for Construction Equipment

Equipment	Approximate peak particle velocity at 25 feet (inches/second)	Approximate peak particle velocity at 70 feet (inches/second)	Approximate peak particle velocity at 140 feet (inches/second)
Large bulldozer	0.089	0.019	0.007
Loaded trucks	0.076	0.016	0.006
Small bulldozer	0.003	0.001	0.0002
Jackhammer	0.035	0.007	0.003
Vibratory compactor/roller	0.210	0.045	0.016
Source: Federal Transit Administration. *Transit Noise and Vibration Impact Assessment Guidelines*. Table 12-2. 2006.			

Ground-borne vibration decreases rapidly with distance. As indicated in Table 8, based on the FTA data, vibration velocities from typical heavy construction equipment operations that would be used during project construction range from 0.001 to 0.045 inch-per-second peak particle velocity (PPV) at 70 feet from the activity source. With regard to the project, ground-borne vibration would be generated primarily during site clearing and grading activities onsite and by offsite haul-truck travel facilitated by implementation of the proposed project. The closest structures to the nearest construction activity area are residential uses located approximately 50 feet to the east of the proposed alignment. As demonstrated in Table 8, the anticipated vibration levels at these distances would not exceed the 0.2 inch-per-second PPV significance threshold during construction. Therefore, vibration impacts associated with construction are anticipated to be less-than-significant.

Mitigation Measures: No mitigation measures are required.

c) The nearest airport is the Fall River Mills Airport which is approximately 27 miles to the north east. The project is not located within the vicinity of a private airstrip or an airport land use plan, or within two miles of a public airport or public use airport. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Noise* were found to be less-than-significant with mitigation incorporated.

XIV. POPULATION AND HOUSING: Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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)?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Discussion: The population of the Rancheria was recorded by US Census Bureau data for the year 2000 at 106 persons and for the year 2010 as 163 persons. Data also showed that the Montgomery Creek Census Tract had a growth factor of 53.7 percent however, the 2010 US Census found California's growth rate of Native Americans to be 8.8 percent (US Census, 2010).

The 2019 population estimates are 242 members based on census tract growth factors. The Rancheria expects additional growth in the future due to plans to eventually expand Rancheria operations to provide additional housing, jobs, and community services on the Rancheria. However, there are no current plans to implement these additional services at this time.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) The project would not induce substantial unplanned population growth in an area, either directly or indirectly. The proposed project would result in the construction of roadway infrastructure and does not include the development of new homes or businesses. It would not create any permanent jobs. Therefore, it is not expected to induce substantial growth in the area. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) The project would not displace people or existing housing. The project does not include the demolition of any existing housing.

No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Population and Housing* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

XV. PUBLIC SERVICES: 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:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Fire Protection?				X
Police Protection?				X
Schools?				X
Parks?				X
Other public facilities?				X

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

The project would not 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:

Fire Protection:

Fire protection services to the proposed project are currently provided by County and State agencies and private emergency responders. Implementation of the proposed road extension is not anticipated to significantly increase response times to the site or result in an increase in the demand for these protection services or require any additional fire facilities. No impacts are anticipated in this regard.

Mitigation Measures: No mitigation measures are required.

Police Protection:

Police protection services to the proposed project are currently provided by the Shasta County Sheriff's Office. Implementation of the proposed roadway extension is not expected to significantly increase response times to the site or result in an increase in the demand for police protection services or require any additional law enforcement facilities. The proposed project does not include housing or any other infrastructure that would increase the local population and therefore is not considered significant enough to warrant any additional sworn or non-sworn peace officers. No impacts are anticipated in this regard.

Mitigation Measures: No mitigation measures are required.

Schools:

The purpose of the proposed project is the extension of Hardin Road in unincorporated Shasta County. Implementation of the proposed roadway extension will not result in an increase of student populations in unincorporated Shasta County. The proposed project does not result in an increase in housing or population in the County which would require additional educational facilities. Therefore, the proposed project would have no impact in this area.

Mitigation Measures: No mitigation measures are required.

Parks:

The project is located in the unincorporated portion of Shasta County which does not have a formal park and recreation program normally found within incorporated cities. The need for additional parkland is primarily based on an increase in population to an

area. Given that the proposed project would not increase the population of Shasta County, the project would not burden any parks in the surrounding area beyond capacity by generating additional recreational users. Therefore, the proposed project would not require the construction or expansion of park and recreational facilities and would also not result in an increase in demand for parks and recreation facilities in the surrounding area. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Public Services* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

XVI. RECREATION:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?				X
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

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) The County does not have a neighborhood or regional parks system or other County-maintained recreational facilities. The proposed project does not propose to add significant new numbers of people that would require housing and ancillary recreation facilities, therefore the proposed project would not 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. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. School facilities are typically used for sports and recreation. The City of Redding also has a number of recreational facilities. In addition, there are tens of thousands of acres of rivers, lakes, forests, and other public land available for recreation in Lassen National Park, the Shasta and Whiskeytown National Recreation Areas, the National Forests, and other public land administered by Bureau of Land Management. No impact would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Recreation* were found to not be significant because of the inability of a project of this scope to create such impacts or the absence of project characteristics producing effects of this type.

XVII. TRANSPORTATION: Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?		X		
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?			X	
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
d) Result in inadequate emergency access?				X

Discussion: Transportation facilities near the proposed project include public roads administered by Shasta County and Caltrans, Tribal Roads under the jurisdiction of the Tribe, and private roads used by area residents that have management and maintenance provided by

individual users. Caltrans maintains SR-299 on the western side of the project area, a two-lane paved road that is the principal public access route through the area.

Windy Point Road is a Tribal road that traverses through the area and is on the northern and eastern boundary of the project area. This two-lane paved road is classified by Shasta County as a Minor Collector, which are roads that provide access between local streets and arterials and connect smaller urban areas to places of interest. Operations and maintenance of this road are the responsibility of the Pit River Tribe. The Tribe also has operations and maintenance of small portions of Hardin Road that are located on Trust and Fee Title (private Tribal ownership) lands. The Tribe does not have ownership of all of Hardin Road, but does have easements for portions of the roadway in the area of the project.

Other roads, including Bakus Road and portions of Hardin Road, are privately owned and road maintenance responsibility is shared by numerous landowners, including the Pit River Tribe (as a private land owner) for various segments. Bakus Road (which transitions into Hardin Road) is used as an access road to the southern portion of the area, and primarily serves other private and non-Tribal lands. Over time, Bakus Road has been used by Tribal Housing residents as an alternative route out to SR-299.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) Because the proposed project would not directly or indirectly introduce a new population in the region, the total number of trips generated by the project is not expected to change from existing conditions. As a result, the proposed project would not conflict with a program, ordinance or policy establishing measures of effectiveness for the performance of addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

   Project construction will, however, result in temporary increases in local traffic due to the transport of construction personnel, equipment and material to the project site. Project construction may have a temporary impact on traffic flow where the alignment would tie into SR-299. In addition, existing traffic levels would temporarily increase due to deliveries of materials and equipment to the project site and by workers commuting to the site daily. It is assumed that construction workers would travel to and from the construction site daily in personal vehicles. In addition, vehicles hauling construction equipment and materials would be traveling at slower speeds than through-traffic.

   Some traffic delays can be expected during project construction; however, the traffic impacts during construction are temporary in nature and will cease upon completion of construction activities. A Traffic Management Plan (TMP) is required to be developed by the Tribe and approved by the Shasta County Public Works Department (and Caltrans for work occurring within the right-of-way of SR-299) prior to the initiation of any construction activities to minimize disruption to existing traffic flow conditions. The TMP addresses details regarding road closures, provisions to maintain access to any adjacent properties, prior notices, adequate sign-posting, detours (including for bicyclists), and permitted hours of construction activity as determined appropriate by the County. Adequate local and emergency access to adjacent uses is required to be provided at all times. The TMP shall be reviewed and approved by the Shasta County Fire Department and other emergency service providers so that construction does not create any hazards or interfere with any emergency response or evacuation plans. Mitigation Measure XVII.a.1 is required to ensure accurate monitoring and implementation of the TMP. Less-than-significant impacts would occur in this regard.

   Mitigation Measures: The following mitigation measure has been developed to reduce potential transportation impacts to less-than-significant levels:

   > Mitigation Measures XVII.a.1. Prior to commencement of any construction activities, the project applicant shall submit a Traffic Management Plan (TMP) to the Shasta County Public Works Department. The TMP shall address temporary safety and traffic concerns along SR-299, Hardin Road, and local connector roads within the construction area. At a minimum, the TMP shall include plans clearly denoting any proposed lane closures, proposed vehicle/bicyclist/pedestrian rerouting plans, and a traffic signage plan to ensure adequate circulation during the short-term construction process. The TMP shall be subject to review and approval by Shasta County and as appropriate the California Department of Transportation. In addition, if temporary road or lane closures are determined necessary, notification shall be provided to the Shasta County Fire Department and Sheriff's Office.

b) CEQA Guidelines Section 15064.3, Subdivision (b) states that *"for transportation projects that reduce or have no impact on vehicle miles traveled should be presumed to cause a less than significant transportation impact."* As described above the proposed project would not introduce new population in the area. The proposed project will improve transportation access by construction of a new road segment and repair and rehabilitation of existing roads to provide for easier access, a looped emergency access route (in combination with other existing Tribal roads), and improved access for emergency vehicles. Implementation of the proposed project would not result in a conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Less-than-significant impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

c) The project would not substantially increase hazards due to a geometric design feature or incompatible uses. Both the existing Bakus and Hardin Roads have significant issues. Both roads are unpaved and in many locations are narrow with lanes down to 1 to 1.5 lane widths, making it difficult for oncoming traffic to safely pass. Other portions of Bakus and Hardin Roads are steep and unsurfaced, allowing road rutting during rain events which both deposits sediment to area drainages but also deteriorates the roads running surface and structural integrity.

The lower segment of Bakus Road, at its intersection with SR-299 is steep (grades exceed 16%), narrow and intersects a large ephemeral drainage in a narrow canyon, which allows the road subgrade to become saturated and fail at times. Additionally, the encroachment onto SR-299 is very poor and does not provide sufficient sight-lines for motorists (both on Bakus and SR-299) to observe oncoming traffic. There is currently no turn lane or acceleration or deceleration lanes at this location, making it problematic to enter and exit the highway.

Implementation of the proposed project would result in the construction of a new left turn lane on SR-299 from the new segment of Hardin Road thereby improving ingress and egress on/from SR-299. Impacts are considered less-than-significant in this regard.

Mitigation Measures: No mitigation measures are required.

d) The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. The proposed project would not result in inadequate emergency access. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Transportation* were found to be less-than-significant with mitigation incorporated.

XVIII. TRIBAL CULTURAL RESOURCES: Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) 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:				
i) 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		X		
ii) 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.				

Discussion: Effective July 1, 2015, Assembly Bill 52 (AB 52) amended CEQA to require that: 1) a lead agency provide notice to any California Native American tribes that have requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include tribal cultural resources, the potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to AB 52, Section 21073 of the Public Resources Code defines California Native American tribes as "a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004." This includes both federally and non-federally recognized tribes.

Consultation and correspondence with various culturally affiliated Tribal groups and agencies were conducted as a part of the prior federal environmental review for this project. As a Pit River Tribal project, the Tribal Historic Preservation Officer (Natalie Forrest-Perez) was contacted, and Ms. Forrest-Perez facilitated contacts with the Madesi Band of the Pit River Tribe. Other contacts included representatives from the Greenville Rancheria, Quartz Valley Indian Community, Wintu Tribe of Northern California, Winnemem Wintu Tribe, Nor-Rel-Muk Nation, Redding Rancheria, Shasta Nation, Shasta Indian Nation and the Native American Heritage

Commission.

Pursuant to PRC §21080.3.1, the Department of Resource Management sent a certified letter to each of the aforementioned Tribes on May 12, 2020 providing notification that the project was under review and to provide the Tribes 30 days from the receipt of the letter to request consultation on the project in writing. No response was received.

Tribal consultation pursuant to AB 52, as summarized above, failed to identify any TCRs within the project area. Additional information about potential impacts to TCRs was drawn from the ethnographic context, the results of the cultural resources records search and field survey, and the results of a search of the Sacred Lands File of the NAHC, which were obtained in (November 2015). The Sacred Lands File failed to identify any sacred lands or tribal resources in or near the project area. The cultural resources records search and field survey also determined that there are no significant Native American archaeological sites within the project area.

Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) As described above, no known TCRs have been identified (as defined in Section 21074) within the project area. Therefore, the project would not cause a significant adverse change in the significance of a TCR that is either listed in, or eligible for listing in, the CRHR, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k). The proposed project would not cause a substantial adverse effect to a known TCR.

Mitigation Measures: Refer to Mitigation Measures V.b.1 through V.b.3 above in the Cultural Resources section. Impacts will be less-than-significant.

Findings: In the course of the above evaluation, impacts associated with *Tribal Cultural Resources* were found to be less-than-significant with mitigation incorporated.

XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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 relocations of which could cause significant environmental effects?				X
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?				X
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
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	
e) Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?			X	

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) The project would not require or result in the relocation or construction of new or expanded water or, wastewater treatment facilities or expansion of existing storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocations of which could cause significant environmental effects. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) The proposed project does not result in an increased demand for water and no new or expanded entitlements are required. Therefore, the proposed project would not result in the exceedance of an allotted water supply for the County and the project would have no impact in this area.

Mitigation Measures: No mitigation measures are required.

c) The project would not result in the production of any wastewater. No impacts are anticipated in this regard.

Mitigation Measures: No mitigation measures are required.

d) The project would not 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. The Richard W. Curry/West Central Landfill has approximately 120 to 320 tons per day of capacity; therefore, the landfill would support a temporary increase in solid waste during construction of the proposed project. Recycling of construction debris would reduce the potential amount of waste disposed of at the Richard W. Curry/West Central Landfill and would contribute to the recycling goals set forth by Shasta County, California Building Code, and AB 939. Construction activities would be required to comply with all federal, State, and local statues and regulations related to solid waste. As a result, less-than-significant impacts would occur.

Mitigation Measures: No mitigation measures are required.

e) The project would comply with Federal, State, and local management and reduction statutes and regulations related to solid waste. The project will not generate any solid waste. The 1989 California Integrated Waste Management Act (AB 939) requires the County to attain specific waste diversion goals. In addition, the California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires expanded or new development projects to incorporate storage areas for recycling bins into the proposed project design. Reuse and recycling of construction debris would reduce operating expenses and save valuable landfill space.

Project implementation would generate solid waste during construction. Common construction waste may include metals, masonry, plastic pipe, rocks, dirt, cardboard, or green waste related to land development. AB 939, SB 1016, AB 341, and AB 1826 require the County to meet specific waste diversion goals. The Richard W. Curry West Central Landfill has available capacity to accommodate solid construction waste generated by the proposed project. In addition, the Anderson Landfill also has available capacity to accommodate solid construction waste generated by the proposed project. Therefore, impacts are considered to be less-than-significant.

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Utilities and Service Systems* were found to be less-than-significant.

XX. 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 Incorporated	Less-Than-Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
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		
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	
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	

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) Refer to impact discussion under Item XVII.d, above. Less-than-significant impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

b) A large portion of the proposed alignment been previously disturbed. The proposed project does not propose changes to the project site that would exacerbate wildfire risks. In addition, there is no significant change in use or operations onsite that would lead to the project exacerbating wildfires and related pollutant contamination. Through the implementation of fire safe construction standards noted under impact discussion under Item IX.g, above (refer to Mitigation Measure IX.g.1), the

proposed project would not cause significant wildfire risk to the area from project related activities. Based on the historical use of the site, fire safe construction standards, the project will result in impacts that are less-than-significant in this regard.

Mitigation Measures: See mitigation measure IX.g.1.

c) The project would not 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. No impacts would occur in this regard.

Mitigation Measures: No mitigation measures are required.

d) The project would not 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. The location of the proposed project does not fall within a FEMA flood zone, nor are there any sheer or unstable cliffs in the immediate area. There is no reason to believe that the proposed project would be exposed to significant risks from flooding or landslides as a result of post fire runoff. Impacts are considered to be less-than-significant in this regard.

Mitigation Measures: No mitigation measures are required.

Findings: In the course of the above evaluation, impacts associated with *Wildfire* hazards were found to be less-than-significant with mitigation incorporated.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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 the 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	
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 the effects of past projects, the effects of other current projects, and the effects of probable future projects)?			X	
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the project, observations on the project site and in the vicinity, the following determinations can be made:

a) Evaluation of the proposed project in this document (Section IV, *Biological Resources*) has shown that the activities of the proposed project do not have the potential to degrade the quality of the environment and will not substantially reduce the habitat or cause wildlife populations to drop below self-sustaining levels. Mitigation measures for *Biological Resources* have been developed to reduce potential impacts on sensitive habitats and species to less-than-significant levels.

Also, based on the discussion and findings in Section V, *Cultural Resources*, there is evidence to support a finding that the proposed project is not eligible for listing in the NRHP or CRHR under any significance criteria. Considering the history of extensive agricultural disturbance within the project area and all its previous uses, including over 100 years of documented and related activities, the potential for discovery of intact archaeological deposits or features by implementation of this project is considered moderate. Although no archaeological deposits or features were found during the Cultural Resources study, implementation of mitigation measures will ensure that any additional archaeological deposits or features may be discovered are fully protected during implementation of the project.

b) As discussed throughout this document, implementation of the proposed project has the potential to result in impacts to the environment that are individually limited, but are not cumulatively considerable, including impacts to biological and cultural resources.

In all instances where the project has the potential to contribute to cumulatively considerable impacts to the environment (including the resources listed above) mitigation measures have been imposed to reduce the potential effects to less than significant levels.

As such, with incorporation of the mitigation measures imposed throughout this document, the proposed project would not contribute to environmental effects that are individually limited, but cumulatively considerable, and impacts would be less-than-significant.

c) Based on the discussion and findings in all Sections above, there is no evidence to support a finding that the project would have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly.

Findings: Based upon the review of the information above, implementation of the proposed project is not anticipated to have a substantial adverse effect on the environment. Therefore, there is no significant impact.

INITIAL STUDY COMMENTS

PROJECT NUMBER: Hardin Road Access Project - GRADE19-0054 – Pit River Tribe

GENERAL COMMENTS:

Special Studies: The following project-specific studies have been completed for the proposal and will be considered as part of the record of decision for the Mitigated Negative Declaration:

- Air Quality and GHG Modeling- (Appendix B)
- Cultural Resources Inventory Report Hardin Road Project- (Confidential, not a part)
- Geotechnical Investigation- (Appendix D)
- Hardin Road Biological Resource Assessment Report- (Appendix C)
- Hardin Road Pre-Construction Nesting Bird Survey- Pit River Tribe- (Appendix C)
- Roadway Improvement Plans- (Appendix A)

Conclusion/Summary: Based on a field review by the Planning Division and other agency staff, early consultation review comments from other agencies, information provided by the applicant, and existing information available to the Planning Division, the project, (*as revised and mitigated), is not anticipated to result in any significant environmental impacts.

SOURCES OF DOCUMENTATION FOR INITIAL STUDY CHECKLIST

All headings of this source document correspond to the headings of the initial study checklist. In addition to the resources listed below, initial study analysis may also be based on field observations by the staff person responsible for completing the initial study. Most resource materials are on file in the office of the Shasta County Department of Resource Management, Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001, Phone: (530) 225-5532.

GENERAL PLAN AND ZONING

1. Shasta County General Plan and land use designation maps.
2. Applicable community plans, airport plans and specific plans.
3. Shasta County Zoning Ordinance (Shasta County Code Title 17) and zone district maps.

ENVIRONMENTAL IMPACTS

I. AESTHETICS

1. Shasta County General Plan, Section 6.8 Scenic Highways, and Section 7.6 Design Review.
2. Zoning Standards per Shasta County Code, Title 17.

II. AGRICULTURAL AND FORESTRY RESOURCES

1. Shasta County General Plan, Section 6.1 Agricultural Lands.
2. Shasta County Important Farmland 2016 Map, California Department of Conservation.
3. Shasta County General Plan, Section 6.2 Timber Lands.
4. Soil Survey of Shasta County Area, California, published by U.S. Department of Agriculture, Soil Conservation Service and Forest Service, August 1974.

III. AIR QUALITY

1. Shasta County General Plan Section, 6.5 Air Quality.
2. Sacramento Valley Air Quality Engineering and Enforcement Professional (SVAQEEP), 2018, Northern Sacramento Valley Planning Area - 2018 Triennial Air Quality Attainment Plan.
3. California Air Pollution Control Officer's Association (CAPCOA), 2009, Health Risk Assessments for Proposed Land Use Projects.
4. California Air Pollution Control Officer's Association. (CAPCOA), 2011, Health Effects.
5. CAPCOA, 2016, California Emission Estimate Model (CalEEMod), Version 2016.3.1, Model for project used on March 30, 2020.
6. California Air Resources Board (CARB), 2018, Area Designations Map / State and National, Accessed March 31, 2020 at: https://ww3.arb.ca.gov/desig/adm/adm.htm.
7. CARB, 2019, Shasta County AQMD List of Current Rules – Rules 2-1 New Source Review and 3-16 Fugitive, Indirect, or Non-Traditional Sources, Accessed August 6, 2019 at: https://ww3.arb.ca.gov/drdb/sha/cur.htm.
8. CARB, 2020, Health Effects of Pollutants - Hydrogen Sulfide, Lead, Sulfates, Vinyl Chlorides, and Visibility Reducing Particles.
9. U.S. Environmental Protection Agency (EPA), 2018, Criteria air pollutants and Ground-level Ozone Basics, Accessed March 31, 2020 and April 1, 2020 at: https://www.epa.gov/criteria-air-pollutants.
10. U.S. Geological Survey (USGS), 2011, Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California.
11. California Department of Conservation (DOC) – Division of Mines and Geology, 2000, A General Location Guide for Ultramafic Rocks in California - Areas More Likely to Contain Naturally Occurring Asbestos.
12. California Department of Transportation (Caltrans), 2017, Traffic Volumes: Routes 280 – 405, Accessed March 31, 2020 at: https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017/route-280-405.

IV. BIOLOGICAL RESOURCES

1. Shasta County General Plan, Section 6.2 Timberlands, and Section 6.7 Fish and Wildlife Habitat.
2. Designated Endangered, Threatened, or Rare Plants and Candidates with Official Listing Dates, published by the California Department of Fish and Wildlife.
3. Natural Diversity Data Base Records of the California Department of Fish and Wildlife.
4. Federal Listing of Rare and Endangered Species.
5. Shasta County General Plan, Section 6.7 Fish and Wildlife Habitat.
6. State and Federal List of Endangered and Threatened Animals of California, published by the California Department of Fish and Wildlife.
7. Natural Diversity Data Base Records of the California Department of Fish and Wildlife.

V. CULTURAL RESOURCES

1. Shasta County General Plan, Section 6.10 Heritage Resources.
2. Records of, or consultation with, the following:
   a. The Northeast Information Center of the California Historical Resources Information System, Department of Anthropology, California State University, Chico.
   b. State Office of Historic Preservation.
   c. Local Native American representatives.
   d. Shasta Historical Society.

VI. ENERGY

1. California Global Warming Solutions Act of 2006 (AB 32)
2. California Code of Regulations Title 24, Part 6 – California Energy Code

VII. GEOLOGY AND SOILS

1. Shasta County General Plan, Section 5.1 Seismic and Geologic Hazards, Section 6.1 Agricultural Lands, and Section 6.3 Minerals.
2. County of Shasta, Erosion and Sediment Control Standards, Design Manual
3. Soil Survey of Shasta County Area, California, published by U.S. Department of Agriculture, Soil Conservation Service and Forest Service, August 1974.
4. Alquist - Priolo, Earthquake Fault Zoning Maps.

VIII. GREENHOUSE GAS EMISSIONS

1. Shasta County, 2012, Regional Climate Action Plan.
2. California Air Pollution Control Officers Association, 2008, CEQA & Climate Change (White Paper), Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act.
3. CAPCOA, 2016, California Emission Estimate Model (CalEEMod), Version 2016.3.1, Model for project used on March 30, 2020.
4. California Air Resources Board (CARB), 2017, Climate Change Scoping Plan: The Strategy for achieving California's 2030 greenhouse gas reduction target.
5. California Air Resources Board (CARB), 2018, 8th Edition, California Greenhouse Gas Emissions Inventory: 2000-2016, California Greenhouse Gas Emissions for 2000 to 2016, Trends of Emissions and Other Indicators, Executive Summary.
6. Sacramento Metropolitan Air Quality Management District (SMAQMD), 2018, CEQA Guide: Chapter 6 – Greenhouse Gas Emissions, Available at: http://www.airquality.org/LandUseTransportation/Documents/Ch6GHGFinal5-2018.pdf.

IX. HAZARDS AND HAZARDOUS MATERIALS

1. Shasta County General Plan, Section 5.4 Fire Safety and Sheriff Protection, and Section 5.6 Hazardous Materials.
2. County of Shasta Multi-Hazard Functional Plan
3. Records of, or consultation with, the following:
   a. Shasta County Department of Resource Management, Environmental Health Division.
   b. Shasta County Fire Prevention Officer.
   c. Shasta County Sheriff's Office, Office of Emergency Services.
   d. Shasta County Department of Public Works.
   e. California Environmental Protection Agency, California Regional Water Quality Control Board, Central Valley Region.

X. HYDROLOGY AND WATER QUALITY

1. Shasta County General Plan, Section 5.2 Flood Protection, Section 5.3 Dam Failure Inundation, and Section 6.6 Water Resources and Water Quality.
2. Flood Boundary and Floodway Maps and Flood Insurance Rate Maps for Shasta County prepared by the Federal Emergency Management Agency, as revised to date.
3. Records of, or consultation with, the Shasta County Department of Public Works acting as the Flood Control Agency and Community Water Systems manager.

XI. LAND USE AND PLANNING

1. Shasta County General Plan land use designation maps and zone district maps.
2. Shasta County Assessor's Office land use data.

XII. MINERAL RESOURCES

3. Shasta County General Plan Section 6.3 Minerals.

XIII. NOISE

1. Shasta County General Plan, Section 5.5 Noise and Technical Appendix B.

XIV. POPULATION AND HOUSING

1. Shasta County General Plan, Section 7.1 Community Organization and Development Patterns.
2. Census data from U.S. Department of Commerce, Bureau of the Census.
3. Census data from the California Department of Finance.
4. Shasta County General Plan, Section 7.3 Housing Element.
5. Shasta County Department of Housing and Community Action Programs.

XV. PUBLIC SERVICES

1. Shasta County General Plan, Section 7.5 Public Facilities.
2. Records of, or consultation with, the following:
   a. Shasta County Fire Prevention Officer.
   b. Shasta County Sheriff's Office.
   c. Shasta County Office of Education.
   d. Shasta County Department of Public Works.

XVI. RECREATION

1. Shasta County General Plan, Section 6.9 Open Space and Recreation.

XVII. TRANSPORTATION/TRAFFIC

1. Shasta County General Plan, Section 7.4 Circulation.
2. Records of, or consultation with, the following:
   a. Shasta County Department of Public Works.
   b. Shasta County Regional Transportation Planning Agency.
   c. Shasta County Congestion Management Plan/Transit Development Plan.
3. Institute of Transportation Engineers, Trip Generation Rates.

XVIII. TRIBAL CULTURAL RESOURCES

1. Tribal Consultation in accordance with Public Resources Code section 21080.3.1

XIX. UTILITIES AND SERVICE SYSTEMS

1. Field Reconnaissance
2. Records of, or consultation with, the following:
   a. Roadway Design Engineer.
   b. Shasta County Department of Resource Management, Environmental Health Division.
   c. Shasta County Department of Public Works.

XX. WILDFIRE

1. Office of the State Fire Marshal-CALFIRE Fire Hazard Severity Zone Maps

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Non

MITIGATION MONITORING PROGRAM (MMP)
FOR GRADING PERMIT GRADE19-0054 (PIT RIVER TRIBE)

Mitigation Measure/Condition	Timing/Implementation	Enforcement/Monitoring	Verification (Date & Initials)
Section III. Air Quality			
III.b.1. Prior to issuance of a grading permit, the project applicant shall submit a grading plan for review and approval by the Shasta County Building Department. The following specifications shall be included to reduce short-term air quality impacts attributable to the proposed project: • During all construction activities, all diesel-fueled construction equipment, including but not limited to rubber-tired dozers, graders, scrapers, excavators, asphalt paving equipment, cranes, and tractors, shall be California Air Resources Board (CARB) Tier 3 Certified or better as set forth in Section 2423 of Title 13 of the California Code of Regulations, and Part 89 of Title 40 of the Code of Federal Regulations. • All construction equipment shall be maintained and properly tuned in accordance with manufacturers' specifications. Equipment maintenance records shall be kept onsite and made available upon request by the County of Shasta. • All material excavated, stockpiled, or graded shall be sufficiently watered to prevent fugitive dust from leaving property boundaries and causing a public nuisance or a violation of an ambient air standard. Watering shall occur at least twice daily with complete site coverage, preferably in the mid-morning and after work is completed each day. • All areas (including unpaved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions. • All onsite vehicles shall be limited to a speed of 15 miles per hour on unpaved roads. • All land clearing, grading, earth-moving, or excavation activities on the project site shall be suspended when sustained winds are expected to exceed 20 miles per hour. • All portions of the development site which have been stripped of vegetation by construction activities and left	Prior to Issuance of a Grading Permit Through the duration of construction Final Inspection of Grading Permit	Resource Management, Planning Division (Plan Review) Resource Management, Building Division (Field/Final Inspection)	

inactive for more than ten days shall be seeded and/or watered until a suitable grass cover is established. • All trucks hauling dirt, sand, soil, or loose material shall be covered or shall maintain at least 2 feet of freeboard (i.e., minimum vertical distance between top of the load and the trailer) in accordance with the requirements of California Vehicle Code Section 23114. This provision will be enforced by local law enforcement agencies. • All material transported offsite shall be either sufficiently watered or securely covered to prevent a public nuisance. • Wheel washers shall be installed where project vehicles and/or equipment enter and/or exit onto paved streets from unpaved roads. Vehicles and/or equipment shall be washed prior to each trip. • Prior to final occupancy, the applicant shall re-establish ground cover on the construction site through seeding and watering. • Off-road construction equipment shall not be left idling for periods longer than 5 minutes when not in use.			
Section IV. Biological Resources			
IV.a.1. To minimize the potential impacts to California oat-grass prairie, and to mitigate for the potential impacts, the following shall be implemented: • This vegetation community shall be avoided during the implementation of the project by relocating the new roadway segment that impacts identified habitat. • If avoidance is not feasible then the following will occur: a. Prior to project development, follow-up site reviews by a qualified biologist will re-assess the California oat-grass prairie vegetation community to determine if the community area has expanded or contracted since development of the site investigations in 2018. b. If the vegetation community is no longer present, then no further action will be required. C. If the follow-up surveys determine that the California oat-grass prairie vegetation type is still present and impacted by the project, the project	Prior to Issuance of Grading Permit Through the duration of construction Final Inspection of Grading Permit	Resource Management, Planning Division (Grading plan review/field inspection) California Department of Fish and Wildlife (Coordination)	

proponent will coordinate with the California Department of Fish and Wildlife (CDFW) to develop an appropriate mitigation and revegetation plan which would include, but is not limited to seed collecting, restoration of onsite habitat, monitoring, and success criteria.			
IV.b.1. Prior to issuance of a grading permit affecting any jurisdictional waters, including wetlands, as identified in the project wetland delineation, the project applicant shall obtain the following resource agency permits from the ACOE, CDFW, RWQCB, or any other applicable agency (i.e., USFWS) identified through the permitting process: • Prior to any discharge of dredged or fill material into "waters of the U.S.", including wetlands, authorization under a Nationwide Permit or Individual Permit shall be obtained from the ACOE. For any features determined to not be subject to the ACOE jurisdiction during the verification process, authorization to discharge (or a waiver from regulation) shall be obtained from the RWQCB. For fill requiring an ACOE permit, water quality certification shall be obtained from the RWQCB prior to discharge of dredged or fill material. • Prior to any activities that would obstruct the flow of, or alter the bed, channel, or bank of any intermittent or ephemeral creeks, notification of streambed alteration shall be submitted to the CDFW; and, if required, a 1602 streambed alteration agreement shall be obtained by the applicant. • The project applicant shall achieve the mitigation for the permanent loss of streams, wetlands, and other waters through the purchase of mitigation credits at an agency-approved mitigation bank at a minimum 1:1 ratio, or through onsite/offsite habitat restoration at a minimum 3:1 ratio. All measures contained in the permits or associated with any agency approvals shall be implemented to the satisfaction of the lead regulatory agency.	Prior to Issuance of Grading Permit	Resource Management, Planning Division Grading Plan Review) Resource Management, Building Division (Field/Final Inspection) California Department of Fish and Wildlife (Permit) United States Army Corps of Engineers (Permit) California Regional Water Quality Control Board (Permit)	

IV.d.1. Should the project require that vegetation be removed as part of construction activities, the following will occur to avoid impacts to nesting migratory birds or raptors that may be utilizing trees, shrubs or vegetative ground cover at the construction site (State of California Fish and Game Code Sections 3503 and 3503.5): • Vegetation removal should be implemented between September 1 to January 31 when birds are not nesting, OR • Should vegetation need to be removed from February 1 to August 31 (nesting season), then nesting bird surveys will be conducted by a qualified biologist no more than one week prior to vegetation removal during this period: a. If no nesting birds are located during the survey, then vegetation removal may proceed. b. Should the survey determine that an active nest is located in the vegetation to be removed during the survey, the biologist shall delineate a no disturbance buffer that is adequate to prevent nesting failure. No vegetation shall be removed within the buffer until the young have fledged, as determined through additional monitoring by a qualified biologist. c. Results of all nesting bird surveys, both positive and negative, will be sent to: The Department of Fish and Wildlife, ATTN: CEQA, 601 Locust Street, Redding, CA 96001.	Prior to Issuance of Grading Permit Through the duration of construction	Resource Management, Planning Division Grading Plan Review) California Department of Fish and Wildlife (Coordination)	
IV.e.1. Grading plans prepared by the project applicant shall note the following construction specifications designed to avoid the introduction and spread of weeds: • Using only certified weed-free erosion control materials, mulch, and seed. • Precluding the use of rice straw in riparian areas. • Limiting any import or export of fill material to material known to be weed free. • Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility prior to entering the County. If the equipment has most recently been used within the County, cleaning is not required. • Requiring the construction contractor to thoroughly wash all equipment at a commercial wash facility immediately upon termination of its use at the project site.	Prior to Issuance of Grading Permit Final Inspection of Grading Permit Through the duration of construction	Resource Management, Planning Division Grading Plan Review) Resource Management, Building Division (Field/Final Inspection)	

• The project contractor shall continuously comply with the above stated measures throughout the duration of onsite and offsite construction activities.			
Section V. Cultural Resources			
V.b.1. To determine if cultural resources may be present at the proposed action during ground disturbing activities, and take appropriate measures to protect these resources, Native American Tribal Monitors will be present during these ground disturbing activities. Ground disturbing activities are considered to be site grading, excavations for footings and foundations, and trenching for new pipelines. Should the Monitors determine previously unknown cultural resources are located at the site, the excavation activities will temporarily cease, and Mitigation Measure CR-2 will be implemented to determine appropriate action prior to resuming construction activities.	Through the duration of construction	Native American Tribal Monitors (field inspections) Tribal Historic Preservation Officer (Consultation)	
V.b.2. All work within 50 feet of an inadvertent discovery of a cultural/paleontological discovery shall be halted until a professional archaeologist, or paleontologist if the find is of a paleontological nature, and the Tribal Historic Preservation Officer (THPO) can evaluate the significance of the find in accordance with the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) criteria. If any find is determined to be significant by the archaeologist, or paleontologist as appropriate, then the Tribe shall meet with the archaeologist, or paleontologist, to determine the appropriate course of action. If necessary, a Treatment Plan shall be prepared by an archeologist (or paleontologist), outlining recovery of the resource, analysis, and reporting of the find. The Treatment Plan shall be reviewed and approved by the THPO prior to resuming construction. All significant cultural or paleontological materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist, or paleontologist, according to current professional standards.	Through the duration of construction	Contractor (Reporting) Tribal Historic Preservation Officer (Consultation) Resource Management, Planning Division (Coordination)	

V.b.3. If vertebrate fossils are discovered during construction activities, all work shall cease within 100 feet of the find until a qualified professional paleontologist as defined by the Society of Vertebrate Paleontology's Conformable Impact Mitigation Guidelines Committee (2011) can assess the nature and importance of the find and recommend appropriate treatment. The Tribe will also be notified of the discovery and the qualified professional paleontologist's opinion within 48 hours of the initial finding. Treatment may include preparation and recovery of fossil materials, so that they can be housed in an appropriate museum or university collection, and also may include preparation of a report for publication describing the finds. Construction activities shall not resume until after the qualified professional paleontologist has given clearance and evidence of such clearance has been submitted to the Tribe. All significant cultural or paleontological materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist, or paleontologist, according to current professional standards.	Through the duration of construction	Contractor (Reporting) Resource Management, Planning Division (Coordination) Qualified Paleontologist as defined by the Society of Vertebrate Paleontology's Conformable Impact Mitigation Guidelines Committee (2011) (Consultation) Pit River Tribe (Consultation)	
Section IX. Hazards and Hazardous Materials			
IX.b.1. The following measures shall be included as written Standard Operating Procedures (SOPs) for filling and servicing construction equipment and vehicles. The SOPs, which are designed to reduce the potential for incidents involving hazardous materials, shall include the following: • Refueling shall be conducted only with approved pumps, hoses, and nozzles; • Catch pans shall be placed under equipment to catch potential spills during servicing; • All disconnected hoses shall be placed in containers to collect residual fuel from the hose; • Vehicle engines shall be shut down during refueling; • No smoking, open flames, or welding shall be allowed in refueling or service areas; • Refueling shall be performed away from bodies of water to prevent contamination of water in the event of a leak or spill; • Service trucks shall be provided with fire extinguishers and spill containment equipment, such as absorbents; • Should a spill contaminate soil, the soil shall be put	Prior to Issuance of Grading Permit Through the duration of construction	Contractor (adherence to SOP's) Resource Management, Planning Division (Grading permit review) Resource Management, Environmental Health Division (Grading permit review/field inspection)	

into containers and disposed of in accordance with Tribal and Federal regulations; • All containers used to store hazardous materials shall be inspected at least once per week for signs of leaking or failure. All maintenance and refueling areas shall be inspected monthly. Results of inspections shall be recorded in a logbook that would be maintained on site; and • The amount of hazardous materials used in the construction and operation shall be consistently kept at the lowest volumes needed. During construction, staging areas, welding areas, or areas slated for development using spark-producing equipment shall be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor shall keep these areas clear of combustible materials in order to maintain a firebreak. Any construction equipment that normally includes a spark arrester shall be equipped with an arrester in good working order. This includes, but is not limited to, vehicles and heavy equipment.			
IX.b.2. If during grading or soil excavation, evidence of petroleum products is discovered and appears to continue below the ground surface, construction activities shall stop immediately and sampling shall be performed to characterize the extent of contamination. If applicable, remediation shall include removal of soil and proper disposal at an approved facility.	Through the duration of construction	Contractor (Reporting) Resource Management, Environmental Health Division (Coordination)	
IX.b.3. If unknown wastes or suspect materials, including groundwater, are discovered during construction by the contractor, all excavation activities in the immediate vicinity of the area of concern shall be suspended. The Tribe, in conjunction with other appropriate agencies, shall develop a plan to investigate suspect materials and determine what corrective measures, if any, may be required to safeguard public health and the environment.	Through the duration of construction	Contractor (Reporting) Pit River Tribe (Coordination) Resource Management, Environmental Health Division (Coordination) California Regional Water Quality Control Board (Coordination)	
IX.b.4. Prior to construction, areas of exposed soils within the operating right-of-way of SR-299, which will be disturbed during project excavation/grading activities, shall	Prior to Issuance of Grading Permit	Resource Management, Planning Division (Grading permit review)	

be sampled and tested for lead so that any special handling, treatment, or disposal provisions associated with aerially deposited lead may be included in construction documents (if aerially deposited lead is present). Traffic striping waste shall be disposed of at an appropriate permitted disposal facility.			
IX.g.1. The Tribe or contractor shall prepare a Fire Preparation and Response Plan in coordination with CAL FIRE and the Shasta County Fire Marshal that shall include, but not be limited to, the following: • During wildfire events, or extreme weather conditions where a combination of high heat and humidity and prevailing winds pose a very high fire danger, the project contractor shall cease construction activities upon being notified by CAL FIRE, the Shasta County Fire Marshal, or the Shasta County Sheriff's Office. Construction activities shall not commence until clearance is provided by any of these agencies. • In the event on an onsite or offsite emergency all personnel will be notified and appropriately directed in accordance with the onsite evacuation plan. • During wildfire events in the region that could potentially require evacuation by area residents, construction activities cease until notified by one of the following agencies: CAL FIRE, Shasta County Fire Marshal, or Shasta County Sheriff's Office. Construction operations shall not commence until clearance is given by any of these agencies. • The Fire Preparation and Response Plan shall be maintained onsite throughout the duration of construction activities and shall outline the necessary fire suppression to maintained onsite (i.e., temporary water storage, fire extinguishers, shovels, etc.). • The Fire Preparation and Response Plan shall be provided to and approved by the Shasta County Fire Marshal prior to commencing onsite construction.	Prior to Issuance of Grading Permit	Shasta County Fire Marshall (Coordination) Resource Management, Planning Division (Grading permit review)	
X. Hydrology and Water Quality			
X.a.1. Prior to any ground-disturbing activities begin, the contractor shall apply for and maintain coverage under the General Construction Storm Water Permit. The contractor	Prior to Issuance of Grading Permit	Resource Management, Planning Division (Grading permit review)	

shall prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), including an erosion control plan that includes erosion control measures and construction waste containment measures to ensure that waters of the United States and the State are protected during and after project construction. The SWPPP shall include site design measures to minimize offsite stormwater runoff that might otherwise affect surrounding habitats. The Central Valley RWQCB will review and monitor the effectiveness of the SWPPP through mandatory reporting by the County and the contractor as required. The SWPPP shall be prepared with the following objectives: (a) identify all pollutant sources, including sources of sediment, that may affect the quality of stormwater discharges from the construction of the project; (b) identify BMPs that effectively reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the site during construction to the Best Available Technology/Best Control Technology standard; (c) provide calculations and design details as well as BMP controls for site run-on that are complete and correct; (d) identify project discharge points and receiving waters; and (e) provide stabilization BMPs to reduce or eliminate pollutants following construction.	Through the duration of construction	Resource Management, Building Division (Grading permit review, Field/Final Inspection) California Regional Water Quality Control Board (Permit)	
X.a.2. The contractor shall implement the Storm Water Pollution Prevention Plan (SWPPP), including all BMPs, and perform inspections of all BMPs during construction. Potential SWPPP BMPs could include, but would not be limited to the following: • Preserve existing vegetation where possible; • Surface roughening of final grades to prevent erosion, decrease run-off, increase infiltration, and aid in vegetation establishment; • Riparian buffers or filter strips along the perimeter of the disturbed area to intercept pollutants prior to offsite discharge; • Placing fiber rolls around onsite drain inlets to prevent sediment and construction-related debris from entering inlets; • Placing fiber rolls along down-gradient disturbed areas of the site to reduce runoff flow velocities and prevent sediment from leaving the site; • Placing silt fences down-gradient of disturbed areas to	Prior to Issuance of Grading Permit Through the duration of construction	Resource Management, Planning Division (Grading permit review) Resource Management, Building Division (Field/Final Inspection) California Regional Water Quality Control Board (Permit)	

slow down runoff and retain sediment; • Stabilizing the construction entrance to reduce the tracking of mud and dirt onto public roads by construction vehicles; • Staging excavated and stored construction materials and soil stockpiles in stable areas and covering materials to prevent erosion; and • Stabilizing temporary construction entrances to limit transport/introduction of invasive species and control fugitive dust emissions.			
X.a.3. Prior to issuance of a grading permit, the project applicant shall submit a final post construction storm water management plan to the County concurrent with site improvement plans. The report shall be prepared by a Registered Civil Engineer and shall, at a minimum, include: A written text addressing existing conditions, the effects of the proposed improvements, all appropriate calculations, watershed maps, changes in flows and patterns, and proposed on- and offsite improvements and drainage easements to accommodate flows from this project. The report shall identify water quality protection features and methods to be used during construction, as well as long-term post-construction water quality measures.	Prior to Issuance of Grading Permit Final Inspection of Grading Permit Through the duration of construction	Resource Management, Planning Division (Grading permit review) Resource Management, Building Division (Field/Final Inspection) California Regional Water Quality Control Board (Permit)	
XIII. Noise			
XIII.a.1. In addition to permitted hours of operation, project grading and construction plans shall include the following noise control measures to be implemented by the project contractor throughout the duration of on-site construction activities. The plans shall be subject to the review and concurrence of the Shasta County Department of Resource Management that the project complies with the following: • Fixed construction equipment such as compressors and generators shall be placed the greatest possible distance from sensitive receptors, but no closer than 200 feet from existing residential structures. • All impact tools shall be shrouded or shielded, and all intake and exhaust ports on power construction equipment shall be muffled or shielded.	Prior to Issuance of Grading Permit Through the duration of construction	Resource Management, Planning Division (Grading permit review)	

XVII. Transportation			
XVII.b.1. Prior to commencement of any construction activities, the project applicant shall submit a Traffic Management Plan (TMP) to the Shasta County Public Works Department. The TMP shall address temporary safety and traffic concerns along SR-299, Hardin Road, and local connector roads within the construction area. At a minimum, the TMP shall include plans clearly denoting any proposed lane closures, proposed vehicle/bicyclist/ pedestrian rerouting plans, and a traffic signage plan to ensure adequate circulation during the short-term construction process. The TMP shall be subject to review and approval by Shasta County and as appropriate the California Department of Transportation. In addition, if temporary road or lane closures are determined necessary, notification shall be provided to the Shasta County Fire Department and Sheriff's Office.	Prior to Issuance of Grading Permit	Resource Management, Planning Division (Grading permit review) Shasta County Public Works Department (Grading permit review) California Department of Transportation (Grading permit review)	
XVIII. Tribal Cultural Resources			
XVIII.a.1. To determine if cultural resources may be present at the proposed action during ground disturbing activities, and take appropriate measures to protect these resources, Native American Tribal Monitors will be present during these ground disturbing activities. Ground disturbing activities are considered to be site grading, excavations for footings and foundations, and trenching for new pipelines. Should the Monitors determine previously unknown cultural resources are located at the site, the excavation activities will temporarily cease, and Mitigation Measure CR-2 will be implemented to determine appropriate action prior to resuming construction activities.	Through the duration of construction	Contractor (Reporting) Resource Management, Planning Division Grading Plan Review) Native American Tribal Monitors / Tribal Historic Preservation Officer (field inspections)	
XVIII.a.2. All work within 50 feet of an inadvertent discovery of a cultural/paleontological discovery shall be halted until a professional archaeologist, or paleontologist if the find is of a paleontological nature, and the Tribal Historic Preservation Officer (THPO) can evaluate the significance of the find in accordance with the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) criteria. If any find is determined to be significant by the archaeologist, or paleontologist as appropriate, then the	Through the duration of construction	Contractor (Reporting) Tribal Historic Preservation Officer (Consultation) Resource Management, Planning Division (Coordination)	

Tribe shall meet with the archaeologist, or paleontologist, to determine the appropriate course of action. If necessary, a Treatment Plan shall be prepared by an archeologist (or paleontologist), outlining recovery of the resource, analysis, and reporting of the find. The Treatment Plan shall be reviewed and approved by the THPO prior to resuming construction. All significant cultural or paleontological materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist, or paleontologist, according to current professional standards.			
XVIII.a.3. If vertebrate fossils are discovered during construction activities, all work shall cease within 100 feet of the find until a qualified professional paleontologist as defined by the Society of Vertebrate Paleontology's Conformable Impact Mitigation Guidelines Committee (2011) can assess the nature and importance of the find and recommend appropriate treatment. The Tribe will also be notified of the discovery and the qualified professional paleontologist's opinion within 48 hours of the initial finding. Treatment may include preparation and recovery of fossil materials, so that they can be housed in an appropriate museum or university collection, and also may include preparation of a report for publication describing the finds. Construction activities shall not resume until after the qualified professional paleontologist has given clearance and evidence of such clearance has been submitted to the Tribe. All significant cultural or paleontological materials recovered shall be subject to scientific analysis, professional curation, and a report prepared by the professional archaeologist, or paleontologist, according to current professional standards.	Through the duration of construction	Contractor (Reporting) Resource Management, Planning Division (Coordination) Qualified Paleontologist as defined by the Society of Vertebrate Paleontology's Conformable Impact Mitigation Guidelines Committee (2011) (Consultation) Pit River Tribe (Consultation)	
XX. Wildfire			
XX.b.1 refers to IX.g.1. The Tribe or contractor shall prepare a Fire Preparation and Response Plan in coordination with CAL FIRE and the Shasta County Fire Marshal that shall include, but not be limited to, the following: • During wildfire events, or extreme weather	Prior to Issuance of Grading Permit	Shasta County Fire Marshal (Coordination) Resource Management, Planning Division (Grading permit review)	

conditions where a combination of high heat and humidity and prevailing winds pose a very high fire danger, the project contractor shall cease construction activities upon being notified by CAL FIRE, the Shasta County Fire Marshal, or the Shasta County Sheriff's Office. Construction activities shall not commence until clearance is provided by any of these agencies. • In the event on an onsite or offsite emergency all personnel will be notified and appropriately directed in accordance with the onsite evacuation plan. • During wildfire events in the region that could potentially require evacuation by area residents, construction activities cease until notified by one of the following agencies: CAL FIRE, Shasta County Fire Marshal, or Shasta County Sheriff's Office. Construction operations shall not commence until clearance is given by any of these agencies. • The Fire Preparation and Response Plan shall be maintained onsite throughout the duration of construction activities and shall outline the necessary fire suppression to maintained onsite (i.e., temporary water storage, fire extinguishers, shovels, etc.).			

Appendix A

Roadway Improvement Plans

Under separate cover, available online at:

https://www.co.shasta.ca.us/index/drm/planning/initial-studies-and-notices-of-completion

Appendix B

Air Quality Modeling Results

Under separate cover, available online at:

https://www.co.shasta.ca.us/index/drm/planning/initial-studies-and-notices-of-completion

Appendix C

Biological Resources Documentation

Under separate cover, available online at:

https://www.co.shasta.ca.us/index/drm/planning/initial-studies-and-notices-of-completion

Appendix D

Geotechnical Report

Under separate cover, available online at:

https://www.co.shasta.ca.us/index/drm/planning/initial-studies-and-notices-of-completion