Mattole Road P.M. 5.25 Storm Damage Repair Project

Public Circulation Draft Initial Study & Proposed Mitigated Negative Declaration

Humboldt County

January 17, 2023

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Prepared for:

Humboldt County Department of Public Works
1106 2nd Street
Eureka, CA 95501

T 707.445.7741 | **Website** https://humboldtgov.org/1392/Public-Works

Prepared by:

718 3rd Street
Eureka, CA 95501, United States

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1. Project Information

Project Title	Mattole Road PM 5.25 Storm Damage Repair
Lead Agency Name & Address	County of Humboldt Department of Public Works 1106 2nd Street Eureka, CA 95501
Contact Person & Phone Number	Andrew Bundschuh Environmental Permitting and Compliance Manager Natural Resources Division Humboldt County Public Works (707) 445-7741 abundschuh@co.humboldt.ca.us
Project Location	Mattole Road Post Mile 5.25, Humboldt County near Honeydew
General Plan Land Use Designation	Agricultural Grazing and Agricultural Exclusive
Zoning	Agricultural Exclusive, Unincorporated.

1.1 CEQA Requirements

This Project is subject to the requirements of the California Environmental Quality Act (CEQA). The lead agency is County of Humboldt. The purpose of this Initial Study is to analyze potential environmental impacts and provide a basis for deciding whether to prepare an Environmental Impact Report, a Mitigated Negative Declaration, or a Negative Declaration. This Initial Study is intended to satisfy the requirements of CEQA (Public Resources Code [PRC], Div 13, Sec 21000-21177), and the State CEQA Guidelines (California Code of Regulations, Title 14, Sec 15000-15387). CEQA encourages lead agencies and applicants to modify their projects to avoid significant adverse impacts.

Section 15063(d) of the State CEQA Guidelines states the content requirements of an Initial Study as follows:

1. A description of the project including the location of the project;
2. An identification of the environmental setting;
3. An identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
4. A discussion of the ways to mitigate the significant effects identified, if any;
5. An examination of whether the project would be consistent with existing zoning, plans, and other applicable land use controls; and
6. The name of the person or persons who prepared or participated in the Initial Study.

1.2 Purpose and Need

The project site is located on the Mattole Road at Post Mile (PM) 5.25. The Mattole Road at this location passes across the side slope of an actively moving landslide area referred to as the “Roscoe Slide” (Figure 1 – Project Vicinity Map). The winter storms of 2005 and 2006 resulted in a large landslide that caused approximately 500 feet of the Mattole Road to shift and sink by about 10 to 15 feet. The head of the large landslide area is located 800 feet upslope of the roadway and it extends below the roadway approximately 300 feet to the Mattole River. This landslide also resulted in the plugging of an existing 24-inch culvert located at the north end of the landslide area. This resulted in the severe erosion to the roadway as well as at the culvert outlet. Emergency opening work has been required following

the 2005/2006 event as well as the 2011 and 2019 events. This work has consisted of fixing the culvert outlet, backfilling the outlet area with rock, and grading the roadway with 5 to10 feet of fill and gravel to restore traffic.

Since the original storm damage occurred, the landslide has remained active and the roadway has remained unpaved and limited to one lane, impeding local traffic and reducing roadway safety. The Project proposes to stabilize the landslide to the extent possible, restore the roadway, improve roadway drainage, reduce erosion potential along the toe of the landslide adjacent to the Mattole River and increase roadway safety and local access.

Project Goals

Goals of the Project specifically include:

– Restore the roadway to a paved, two-lane roadway (one lane each direction) with a paved shoulder for safe transit and emergency access along Mattole Road between the communities of Honeydew and Petrolia;
– Reduce future landslide potential by improving drainage throughout the Project Area to minimize future mass wasting;
– Reduce fine sediment inputs into the Mattole River to minimize potential long-term impacts to water quality and fisheries resources. and
– Improve the visual character of the Project Area.

1.3 Project Location

The Project is located in a remote location of Humboldt County on the Mattole Road at post mile 5.25, approximately 5.25 miles north of Honeydew (see Figure 1 – Project Vicinity Map and Figure 2 – Project Construction Limits). The roadway itself is encompassed within the County right of way. Additional right of way acquisition on both sides of the roadway will likely be necessary for the permanent repair.

The toe of the landslide is adjacent to the Mattole River, below ordinary high water (OHW). The Mattole River is habitat for special status salmonids. Per the California Natural Diversity Database (CNDDB), the nearest positive observations for Northern Spotted Owl (NSO) activity are 1.45 miles from the Project Area on private timberlands. The activity center was most recently documented as active in 2014.

1.4 Project Description

Project elements include longitudinal and transverse slope sub-drainage, a reinforced road embankment (supplemented by lightweight fill if feasible), replacement of the existing culvert and rock slope protection (RSP) armoring at the slope toe along the Mattole River. Project elements are shown on Figure 3 – Project Overview. The size of the Project Area, or Project Construction Limits (Figure 2) is 7.4 acres. The primary project elements are described below.

Lateral Sub-Drains with Subsurface Drainage

East of Mattole Road on the upslope side of the road, three longitudinal sub-drains with a minimum width of 4 feet would start near the top of the landslide and extend downslope approximately 300 feet to the roadway. The sub-drains are comprised of permeable drain rock and geotextile fabric and intended to intercept subsurface flow. The three longitudinal sub-drains would include approximately four lateral sub-drains each with a minimum width of 2 feet. The longitudinal sub-drains would bisect an inboard ditch running parallel to the restored roadway and continue underneath the roadway. West of Mattole Road on the downslope side of the road, the longitudinal sub-drains would daylight into outlet pipes and discharge into energy dissipaters.

Replace Culvert

One new drainage culvert would be installed under Mattole Road (see Figure 3 – Project Overview). The culvert would have a diameter of approximately 18 inches and would daylight onto RSP west of Mattole Road.

Restore Roadway

Approximately 500 feet of the roadway would be re-established with a reinforced embankment comprised of geogrid and native compacted soil. Grading would widen the roadway to a final width of approximately 20 feet with 4-foot shoulders. Following grading, aggregate road base would be placed to achieve the final design elevation and slope. The restored roadway would be paved with asphalt concrete prior to roadway striping. Approximately 10,000 – 15,000 cubic yards of excess soil would be hauled off site for legal reuse or disposal.

Install RSP with Live Willow Plantings at Toe of Landslide and Complete Riparian Plantings

To protect the slope toe at the base of the landslide along the bank of the Mattole River, the top of the RSP would be placed at a minimum of two feet above the 100-year flood elevation. The RSP would extend along approximately 350 feet of riverbank and keyed below the anticipated scour depth (approximately 15 feet below the current riverbed). Layers of willow and soil will be placed between layers of RSP. To place the RSP, a temporary unpaved access road would be constructed from the restored roadway down to the Mattole River. The temporary access road would be removed, treated with erosion control best management practices (BMPs), and revegetated during site closure.

1.5 Project Construction

Construction Schedule

Construction would commence in 2024 and would occur within a single construction season. In-water construction would occur within the regulated in-water work period, typically June 15 through October 31. Construction would require approximately four months.

Construction would occur during late summer and fall when Mattole River stream flows are at their annual minimum. If wetted at the time of construction, the portion of the Mattole River at the toe of the landslide would be hydrologically isolated and dewatered in accordance with requirements from regulatory agencies. Equipment would work from the streambank only to place RSP along the bank and would only enter a dry or dewatered environment. Dewatering would utilize coffer dams and/or other similar structures. Prior to dewatering, fish removal would occur by a qualified biologist following requirements from the California Department of Fish and Wildlife (CDFW) and the National Marine Fisheries Service (NMFS). Following construction, coffer dams and other structures used during dewatering would be removed.

Construction Activities and Equipment

Excess soils, aggregate road base, RSP, and construction materials would be stored within designated staging areas. Excess materials may be re-used on site for backfill and finished grading. Excess materials would not be stockpiled on-site once the Project is complete. The contractor would haul additional excess materials off site for beneficial re-use, recycling, or legal disposal.

Construction would primarily include site preparation such as removal of vegetation, followed by excavation, grading, and hauling. Water from legal sources would be used for dust control and compaction and re-vegetation.

All construction activities would be accompanied by both temporary and permanent erosion and sediment control BMPs. Project construction would include the following activities:

– Clearing and grubbing – To clear roadside vegetation and brush from Mattole Road shoulders and to construct project features above and below Mattole Road;
– Grading – Throughout the Project Area;
– Excavation – Throughout the Project Area to remove and place material, install sub-drains and underdrains, and install RSP;
– Paving - Along the roadway;

– Installation of RSP – RSP to be hauled to the site via dump trucks and placed via excavators; and
– Hauling – Transport of existing road base, pavement, and other excess materials off-site; transport of imported material to the Project Area.

Equipment required for construction would include tracked excavators, backhoes, graders, bulldozers, dump trucks, water trucks, skid steers, and pick-up trucks. It is not anticipated that any temporary utility extensions, such as electric power or water, would be required for construction.

Construction Access

The Project would be accessed via Mattole Road from Honeydew or Petrolia. Aside from the temporary access road from Mattole Road to the Mattole River which would be constructed within the project limits of disturbance, no new access roads would need to be constructed to implement the Project.

Establish Exclusion Areas and Erosion Control

Prior to construction, any exclusion areas to protect delineated wetlands or Sensitive Natural Communities would be installed by the contractor pursuant the final construction design plans. To minimize erosion, sediment, and pollutant contribution to the Mattole River, BMPs would be instituted, including:

– Construction would occur in late summer when the chance of precipitation is lowest and Mattole River instream flows are at their annual minimum.
– Construction equipment would be cleaned and inspected prior to use. Equipment maintenance and fueling would be done at designated staging areas and away from the Mattole River or any delineated wetlands. Equipment would not enter the wetted environment of the Mattole River.
– On-site stockpiles would be isolated with silt fence, filter fabric, and/or straw bales/fiber rolls.
– Silt fence or fiber rolls would be placed below the project areas to contain loose rolling rocks and sediment. Silt fence/fiber rolls would be kept in place and maintained during the entire project. Any sediment caught by the fence or rolls would be removed before the fence/rolls are pulled.
– Ground disturbed by construction work would be revegetated with fast-growing native grasses and sterile hybrids and mulched when work is complete.
– The site would be monitored by Public Works personnel during winter rains and any evidence of erosion (rilling, gullies, etc.) would be repaired immediately. In addition, areas where revegetation is not successful would be reseeded and remulched to ensure vegetative ground cover.

Vegetation Removal

Vegetation removal would be limited to minor roadside vegetation and on the landslide surface to install the drains and RSP and to for construction access. Vegetation removal would include minor mowing and minor brush removal. Small trees presently leaning on the hillside will be removed (< 12-inch diameter).

To minimize potential impacts to birds, vegetation could be removed prior to February 1 or after August 31 to avoid the nesting bird season. If vegetation removal or ground disturbance cannot be confined to work outside of the nesting season, a qualified ornithologist would conduct pre-construction surveys within the vicinity of the Project Area, to check for nesting activity of native birds and to evaluate the site for presence of raptors and special-status bird species. If active nests were detected within the construction footprint or within the construction buffer established by the Project biologist, the biologist would flag a buffer around each nest.

Stockpiling and Staging

Temporary disturbance for stockpiling and staging would occur within the limits of temporary disturbance at the project site and include existing roadside turnouts within approximately 0.5 miles of the Project Area, in either direction. Within the stockpiling and staging area, BMPs would be utilized to prevent materials and hazardous materials from impacting the environment.

Existing Utilities

Overhead telephone and high voltage electrical lines bisect the Project Area on both the upslope and downslope side of the road. The overhead clearance is sufficient to accommodate constructed under the lines without needing temporary or permanent relocation.

Traffic and Access Control

Traffic control would be necessary during construction. Single travel lane would be maintained at all times through the construction site, however short closures (less than 1 hour) may be needed during infrequent equipment/material deliveries and/or road construction.

Groundwater Dewatering

Groundwater dewatering is generally not expected to be required. However, if needed, temporary groundwater dewatering would involve pumping water out of a trench or excavation. Groundwater would typically be pumped to a settling pond, Baker tanks (or other similar type of settling tank), or into a dewatering bag. Dewatering water may also be percolated back into the ground (in uplands) or used for dust control and compaction, or re-vegetation irrigation. Discharge to the Mattole River would not occur

Site Restoration and Closure

Following construction, the contractor would demobilize and remove equipment, supplies, and construction wastes. The disturbed project areas, including the temporary access road to the Mattole River, would be restored to pre-construction conditions or stabilized with a combination of grass seed (broadcast or hydroseed), straw mulch, rolled erosion control fabric, and other plantings/revegetation.

1.6 Operation and Maintenance

Following construction, the roadway will be maintained by the Humboldt County Department of Public Works. Operation and maintenance activities would include monitoring and maintenance of drainage structures and roadside ditches, occasional restriping, and occasional repaving or pavement repair.

1.7 Other Requirements and Considerations

Environmental Protection Actions Incorporated into the Project

The following actions are included as part of the Project to reduce or avoid potential adverse effects that could result from construction or operation of the Project. Additional mitigation measures are presented in the following analysis sections in Chapter 3, Environmental Analysis. Environmental protection actions and mitigation measures, together, would be included in a Mitigation Monitoring Program at the time that the Project is considered for approval.

Environmental Protection Action 1 – Stormwater Pollution Prevention Plan (SWPPP)

The Project will obtain coverage under State Water Resources Control Board (Water Board) Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities. The County will submit permit registration documents (notice of intent, risk assessment, site maps, SWPPP, annual fee, and certifications) to the Water Board. The SWPPP will address pollutant sources, best management practices, and other requirements specified in the Order. The SWPPP will include erosion and sediment control measures, and dust control practices to prevent wind erosion, sediment tracking, and dust generation by construction equipment. A Qualified SWPPP Practitioner will oversee implementation of the Project SWPPP, including visual inspections, sampling and analysis, and ensuring overall compliance.

Required Regulatory Permits

As the federal lead agency, Caltrans would initiate Endangered Species Act (ESA) Section 7 consultation with the U.S. Fish and Wildlife Service (USFWS), with respect to Northern Spotted Owl and with National Marine Fisheries Service (NMFS) pursuant to special status salmonids. Caltrans would also lead National Historic Preservation Act Section 106 consultation with the State Historic Preservation Officers (SHPO). Instream work would require a permit from the U.S. Army Corps of Engineering (USACE) under Section 404 of the Clean Water Act and a corresponding Water Quality Certification from the North Coast Regional Water Quality Control Board (RWQCB) Under Section 401 of the Clean Water Act. A Streambed Alteration Agreement from CDFW would also be necessary. For CEQA, a Notice of Exemption is the anticipated pathway. Recommended permitting and CEQA pathways are summarized below in Table 1.7-1.

Table 1.7-1 Permitting Summary

Agency	Permit or Approval
ESA Section 7 with USFWS and NMFS	Concurrence Letters or Biological Opinions
National Historic Preservation Act (NHPA) Section 106	Concurrence from the SHPO via Caltrans as the federal lead agency
California Dept. of Fish and Wildlife	Section 1602 Streambed Alteration Agreement and California Endangered Species Act (CESA) Compliance
USACE	CWA Section 404 Permit
RWQCB	CWA Section 401 Water Quality Certification
RWQCB	SWPPP or Water Pollution Control Plan

Mitigation, Monitoring, and Reporting Program

The Mitigation, Monitoring, and Reporting Program (MMRP) for this Initial Study/Mitigated Negative Declaration (ISMND) is included in Appendix B. The MMRP includes a summary of all mitigation measures and how each mitigation measure would be implemented to ensure all potential impacts associated with the Project would result in a less than significant environmental impact.

Tribal Consultation

The County provided AB 52 notification letters to representatives of the Bear River Rancheria, Sinkyone Intertribal Wilderness Council, and the Wiyot Tribe on June 1, 2022. No responses have been received to date (more than 30 days).

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

DETERMINATION (To be completed by the Lead Agency)

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment, there would 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 would be prepared.

☐ I find that the proposed 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 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 avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Andrew Bundschuh, Environmental Permitting and Compliance Manager

January 30, 2023
Date

3. Environmental Analysis

3.1 Aesthetics

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
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 view of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				X
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?				X

Within the Project Area, Mattole Road is a rural one-lane gravel road located alongside the Mattole River. The surrounding rural area is undeveloped, and views of Mattole Road, Mattole River, and a ridge slope with shrubs and small trees to the west that continues towards the river to the east.

a) Have a substantial adverse effect on a scenic vista? (No Impact)

A scenic vista can be defined as a view that has remarkable scenery or a broad or outstanding view of the natural landscape. The Humboldt County General Plan identifies forests, open space and agricultural lands, scenic roads, and wild and scenic rivers as scenic resources within the County. Mattole River is not designated as a wild and scenic river; however, the Project Area includes open space and is adjacent to agriculturally zone lands. Therefore, the Project Area is located near a scenic resource as defined by the Humboldt County General Plan.

Through the Project Area, Mattole Road is currently in a dilapidated condition from the landslide and storm damage. The Project would restore Mattole Road to its pre-storm damage condition, consistent with the rest of Mattole Road on either side of the landslide. The visual character of the area, including the scenic resources provided by adjacent open space and agricultural lands, would not be altered, as the Project does not include any new elements that would block or screen public views and does not substantially alter the existing roadway width or alignment. Mature trees along the roadway would not be removed, and any vegetation removed during construction would be replanted. Therefore, construction and operation of the Project would have no effect on scenic vistas. No impact would result.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (No Impact)

According to the California Scenic Highway Mapping System, there are no designated, or eligible, State, or Federal, scenic highways, or byways, in the Project vicinity. The Mattole River is not considered a “wild and scenic” river. There are no structures or historic buildings in the Project Area, and there are also no rock outcroppings. Some existing small willow trees located on the toe of the landslide would be removed during repair but would be replanted as part of

the Project. The trees to be removed are under 12-inches in diameter and are currently in poor condition, leaning over due to the landslide. No impact would result.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public view of the site and its surroundings? (Public Views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? (No Impact)

Proposed actions would not conflict with zoning and other regulations governing scenic quality within Humboldt County. Overall, the proposed Project would be located in an existing roadway and would improve the visual character of the area by repairing the currently dilapidated gravel road. The Project does not include any tall visual elements that would block or screen public views, and replanted trees would be consistent with the surrounding area. No impact would result.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (No Impact)

There is no currently existing night lighting in the Project Area. The Project does not include any new streetlights or other lighting elements. Night-time construction would not occur. No proposed Project elements would cause substantial new sources of glare. No impact would result.

3.2 Agriculture and Forest Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
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

The Project Area is along Mattole Road located adjacent to the Mattole River. The Project Area does not include lands currently used for agricultural or forest resource purposes. The parcels adjacent to the roadway in the Project Area are zoned as agricultural exclusive, agricultural grazing, and timberland; they are also enrolled in the Williamson Act.

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland)? (No Impact)

Lands within the Project Area have not been formally analyzed by the Department of Conservation to determine if they meet the criteria for being designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, because the Farmland Mapping and Monitoring Program has not been completed for Humboldt County.

For this analysis, “agricultural soils” and “prime agricultural soils” designations via the Humboldt County WebGIS online mapping tool were utilized, which utilizes soils data from the Natural Resources Conservation Service [NRCS]. According to the Humboldt County WebGIS, the Project Area does not include Prime Agricultural Soil, the closest being just southeast towards Cook Gulch (Humboldt County 2022a). Under existing conditions, the Project Area consistent predominantly of a large landslide and does not include any agricultural uses. The Project does not remove any agricultural land from production or result in a change in land use, as there is no such land presently under agricultural use within the Project Area. No impact would result.

b) Conflict with Agricultural Zoning or Williamson Act Contract? (Less Than Significant Impact)

In the Project Area, Mattole Road is bordered by parcels zoned as agricultural exclusive and agricultural grazing. The Project Area is not presently used for agricultural purposes. The portion of the Project Area with agricultural zoning is located between Mattole Road and the Mattole River and has a low potential to be used for agricultural use due to its proximity to the Mattole River. Zoning within the Project Area is discussed in Section 3.11 (Land Use and Planning).

There are two parcels enrolled in Williamson Act Contracts within the Project Area, adjacent to Mattole Road (Humboldt County 2022b). Construction of the Project would have no impact on agricultural zoning or Williamson Act

contracts because the Project does not involve any land conversion and would be repairing existing road infrastructure. Any potential impact would be less than significant.

c,d) Conflict with Forest Land Zoning or Convert Forest Land? (No Impact)

There is one parcel zoned as timberland in the Project Area. However, it is a roadside environment that is not presently or recently been used for timber purposes. Zoning within the Project Area is discussed in Section 3.11 (Land Use and Planning). Riparian trees and vegetation currently exist along the Project Alignment. Some small Willow trees, currently leaning and in poor condition, and vegetation would be removed during Project construction. The trees to be removed are smaller riparian trees and not considered forest land resources. No impact would result.

e) Convert Farmland or Forest? (No Impact)

The Project would include the removal of some small trees. However, these trees are generally shrub-like or riparian species and not considered forest resources. Potential biological impacts associated with tree removal are discussed in Section 3.4 (Biological Resources). There are no other changes in the existing environment caused by the Project that would result in conversion of farmland, to non-agricultural use or conversion of forest land to non-forest use in or adjacent to the Project Area. No impact would result.

3.3 Air Quality

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
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:				
a) Conflict with or obstruct implementation of the applicable air quality plan?		X		
b) Result in a cumulatively considerable net increase in 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	

The Project is located within the North Coast Air Basin (Air Basin), which is managed by the North Coast Unified Air Quality Management District (NCUAQMD). The NCUAQMD monitors air quality, enforces local, State, and federal air quality regulations for counties within its jurisdiction, inventories and assesses the health risks of Toxic Air Contaminants (TACs), and adopts rules that limit pollution.

For construction emissions, the NCUAQMD has indicated that emissions are not considered regionally significant for projects when construction would be relatively short in duration, lasting less than one year. Construction is expected to require approximately 100 working days to complete and would occur in 2023. Emissions related to construction were calculated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0 and are discussed below (also see Appendix C – CalEEMod Modeling Information and Results).

a) Conflict with or obstruct implementation of the applicable air quality plan? (Less Than Significant Impact with Mitigation)

This impact relates to consistency with an adopted attainment plan. The NCUAQMD is responsible for monitoring and enforcing local, State, and federal air quality standards. Humboldt County is designated 'attainment' for all National Ambient Air Quality Standards. Pursuant to California Ambient Air Quality Standards, Humboldt County is designated attainment for all pollutants except PM_{10}. Humboldt County is designated as "non-attainment" for the State's PM_{10} standard.

PM_{10} refers to inhalable particulate matter with an aerodynamic diameter of less than 10 microns. PM_{10} includes emission of small particles that consist of dry solid fragments, droplets of water, or solid cores with liquid coatings. The particles vary in shape, size, and composition. PM_{10} emissions include unpaved road dust, smoke from wood stoves, construction dust, open burning of vegetation, and airborne salts and other particulate matter naturally generated by ocean surf. Therefore, any use or activity that generates airborne particulate matter may be of concern to the NCUAQMD. The proposed Project would create PM_{10} emissions in part through vehicles coming and going to the Project Area and the construction activity associated with the Project.

To address non-attainment for PM_{10}, the NCUAQMD adopted a Particulate Matter Attainment Plan in 1995. This plan presents available information about the nature and causes of PM_{10} standard exceedances and identifies cost-effective control measures to reduce PM_{10} emissions to levels necessary to meet California Ambient Air Quality Standards. However, the NCUAQMD states that the plan, "should be used cautiously as it is not a document that is required in order for the NCUAQMD to come into attainment for the state standard (NCUAQMD 2022)." Therefore,

compliance with applicable NCUAQMD PM_{10} rules is applied as the threshold of significance for the purposes of analysis. NCUAQMD Rule 104 Section D, Fugitive Dust Emissions, is applicable to the Project.

Rule 104, Section D – Fugitive Dust Emissions is used by the NCUAQMD to address non-attainment for PM_{10}. Pursuant to Rule 104 Section D, the handling, transporting, or open storage of materials in such a manner, which allows or may allow unnecessary amounts of particulate matter to become airborne, shall not be permitted. Reasonable precautions shall be taken to prevent particulate matter from becoming airborne, including, but not limited to covering open bodied trucks when used for transporting materials likely to give rise to airborne dust and the use of water during the grading of roads or the clearing of land. During earth moving activities, fugitive dust (PM_{10}) would be generated. The amount of dust generated at any given time would be highly variable and is dependent on the size of the area disturbed at any given time, amount of activity, soil conditions, and meteorological conditions. Unless controlled, fugitive dust emissions during construction of the Project could be a potentially significant impact, therefore, Mitigation Measure AQ-1 would be incorporated to comply with NCUAQMD's Rule 104 Section D.

Operation of the Project would not include the handling, transporting, or open storage of materials in which particulate matter may become airborne. Due to the absence of handling, transport, or open storage of materials that would generate particulate matter, operation of the Project is not expected to conflict with NCUAQMD's Rule 104 Section D. No impact from operation of the Project would result.

Mitigation

Implementation of Mitigation Measures AQ-1 would reduce the potential impact related to PM_{10} fugitive dust by requiring BMPs.

Mitigation Measure AQ-1: BMPs to Reduce Air Pollution

The contractor shall implement the following BMPs during construction:

- Disturbed surfaces (e.g., staging areas, soil piles, active graded areas, excavations, and unpaved access roads) shall be watered at least once per day or as needed for dust suppression.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using street sweepers at least once per day, or as needed to alleviate dust and debris on the roadway.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour, unless the unpaved road surface has been treated for dust suppression with water, rock, wood chip mulch, or other dust prevention measures.
- All areas to be paved shall be completed as soon as practical.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes.

With implementation of Mitigation Measure AQ-1, the Project would not conflict with applicable air quality plans. This impact would be reduced to a less-than-significant level with mitigation.

b) Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? (Less Than Significant Impact)

This impact is related to regional criteria pollutant impacts. As identified in Section 3.3 Impact (a), Humboldt County is designated nonattainment of the State's PM_{10} standard. The Project Area is designated attainment for all other State and federal standards. Potential impacts of concern will be exceedances of State or federal standards for PM_{10}. Localized PM_{10} is of concern during construction because of the potential to emit fugitive dust during earth-disturbing activities.

Construction

Localized PM_{10}

The Project would include clearing and grubbing, grading, and paving activity to reconstruct Mattole Road. Generally, the most substantial air pollutant emissions would be dust generated from site clearing and grubbing, and grading. If uncontrolled, these emissions could lead to both health and nuisance impacts. Construction activities would also temporarily generate emissions of equipment exhaust and other air contaminants. The Project's potential impacts from equipment exhaust are assessed separately below.

The NCUAQMD does not have formally adopted thresholds of significance for fugitive, dust-related particulate matter emissions above and beyond Rule 104, Section D which does not provide quantitative standards. For the purposes of analysis, this document uses the Bay Area Air Quality Management District (BAAQMD) approach to determining significance for fugitive dust emissions from Project construction. The BAAQMD bases the determination of significance for fugitive dust on a consideration of the control measures to be implemented. If all appropriate emissions control measures recommended by BAAQMD are implemented for a project, then fugitive dust emissions during construction are not considered significant. BAAQMD recommends a specific set of "Basic Construction Measures" to reduce emissions of construction-generated PM_{10} to less than significant. Without incorporation of these Basic Construction Measures, the Project's construction-generated fugitive PM_{10} (dust) would result in a potentially significant impact.

The Basic Construction Measure controls recommended by the BAAQMD are incorporated into Mitigation Measure AQ-1. These controls are consistent with NCUAQMD Rule 104 Section D, Fugitive Dust Emission and provide supplemental, additional control of fugitive dust emissions beyond that which would occur with Rule 104 Section D compliance alone. Therefore, with incorporation of Mitigation Measure AQ-1, the Project would result in a less than significant impact for construction-period PM_{10} generation and would not violate or substantially contribute to an existing or projected air quality violation.

Construction Criteria Pollutants

For construction emissions, the NCUAQMD has indicated that emissions are not considered regionally significant for projects whose construction would be of relatively short duration, lasting less than one year. For project construction lasting more than one year or that involves above average construction intensity in volume of equipment or area disturbed, construction emissions may be compared to the stationary source thresholds.

The NCUAQMD does not have established CEQA significance criteria to determine the significance of impacts that would result from projects such as the proposed Project; however, the NCUAQMD does have criteria pollutant significance thresholds for new or modified stationary source projects proposed within the NCUAQMD's jurisdiction. NCUAQMD has indicated that it is appropriate for lead agencies to compare proposed construction emissions that last more than one year to its stationary source significance thresholds, which are:

– Nitrogen Oxides – 40 tons per year
– Reactive Organic Gases – 40 tons per year
– PM_{10} – 15 tons per year
– Carbon Monoxide – 100 tons per year.

If an individual project's emission of a particular criteria pollutant is within the thresholds outlined above, the Project's effects concerning that pollutant are considered to be less than significant.

Because of the anticipated construction intensity and materials hauling, CalEEMod version 2020.4.0 was used to estimate air pollutant emissions from Project construction (Appendix C). Construction of the Project would require approximately 100 working days to complete. Detailed construction equipment activity and material hauling volumes were provided by the Project's Design Team.

Table 3.3-1 summarizes construction-related emissions for the Project. As shown in Table 3.3-1, the Project's construction emissions are far below the NCUAQMD's stationary sources emission thresholds. Therefore, the Project's construction emissions are considered to have a less than significant impact.

Table 3.3-1 Construction regional pollutant emissions.

Parameter	Emissions (tons per year)			
	ROG	NOx	CO	PM10
Project Construction	0.2	1.9	1.9	0.4
NCUAQMD Stationary Source Thresholds	40	40	100	15
Significant Impact?	No	No	No	No

Operation

Following construction, the Project would not include any stationary sources of air emissions. The proposed Project is not expected to significantly increase vehicle traffic and would not increase the area's population or redirect traffic patterns. Vehicle trips associated with operation and maintenance of the proposed Project would include maintenance and monitoring as described in the Project Description and would be consistent with the existing maintenance and monitoring of the existing roadway and associated facilities. The Project would not result in substantial long-term operational emissions of criteria air pollutants. Therefore, Project-generated emissions would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment. The Project's contribution to a cumulative impact would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations? (Less than Significant)

Activities occurring near sensitive receptors should receive a higher level of preventative planning. Sensitive receptors include school-aged children (schools, daycare, playgrounds), the elderly (retirement community, nursing homes), the infirm (medical facilities/offices), and those who exercise outdoors regularly (public and private exercise facilities, parks). There is one sensitive receptor approximately 400 feet from the Project boundary, which is a residential home.

Construction equipment and heavy-duty truck traffic generate diesel particulate matter (DPM) exhaust, which is a known toxic air contaminant. DPM from equipment exhaust and PM2.5 pose potential health impacts to nearby receptors if those receptors have prolonged exposure to substantial emissions. As required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]), construction contractors would be required to minimize idling times for trucks and equipment to five minutes, as well as to ensure that construction equipment is maintained in accordance with manufacturer's specifications. Given the limited daily activity for construction and continuous shifting of the construction activities, the construction length of 100 days, the distance from the Project Area to the residence, prolonged exposure of sensitive receptors to substantial pollutant concentrations would not occur. The impact would be less than significant.

d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? (Less Than Significant)

Implementation of the Project would not result in major sources of odor. The project type is not one of the common types of facilities known to produce odors (i.e., landfill, coffee roaster, wastewater treatment facility, etc.). Minor odors from the use of equipment during construction activities would be intermittent and temporary and would dissipate rapidly from the source with an increase in distance. In addition, operation of the Project would not result in locating sensitive receptors near an existing odor source. Thus, the Project would not create objectionable odors affecting a substantial number of people. The impact would be less than significant.

3.4 Biological Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US 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

The Project would involve the clearing, grubbing of vegetation and grading within the Project Area. Construction staging areas would be located within the Project Area, within paved or graveled areas or designated previously disturbed areas. Natural habitat is present within the Project Area, and baseline conditions support some special status species, habitats, and aquatic resources, as described further below.

A Natural Environment Study (NES), Biological Assessment (BA), Aquatic Resources Delineation Report, and Botanical Report (BR) were prepared to assess baseline environmental conditions within the Project Area. These studies evaluate the potential for any special status plants, wildlife species, or any sensitive natural communities (SNCs) or aquatic resources to occur (GHD 2022a, GHD 2022b, GHD 2022c, GHD 2022d). The NES, which includes the Aquatic Resources Delineation Report, and BR assessments are included in the ISMND as Appendix D and E, respectively.

Special status species include those that are federal- or State-listed, State fully protected (FP), State species of special concern (SSC), species on the CDFW Special Animals List (SAL), or State rare, among others. Critical habitat is defined by the ESA as a specific geographic area containing features essential for the conservation of an endangered or threatened species. Under Section 7 of the ESA, critical habitat should be evaluated if designated for federally listed species that may be present in the Biological Study Area (BSA). The BSA, or the area directly or indirectly impacted by the proposed Project, encompasses a 0.25-mile radius around the Project Area.

Information in the NES, BA, and BR was compiled through a review of literature, database searches, and site visits. Database searches encompassed 8 U.S. Geological Survey (USGS) quadrangles (quads) centered on the Project

Area quad (Buckeye Mountain) and the surrounding 8 quads. Other sources reviewed included the California Natural Diversity Database (CNDDB), California Native Plant Society (CNPS) Database, Biogeographical Information and Observation System's Rarefind (BIOS), CDFW Special Animals of California List, and U.S. Fish and Wildlife Service Information for Planning and Conservation (IPaC) tool.

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? (Less Than Significant Impact with Mitigation)

Impact analysis in this section is based on the Project's NES (GHD 2022a), which identified special status wildlife species with a moderate or higher potential to be affected by the Project and assessed the occurrence of special status plants within the Project Area. Sensitive and special status species and communities known to occur or have high potential to occur within the Project Area are identified below.

Special Status Plant Species

Special status plant species include those listed as endangered, threatened, or as candidate species by the CDFW, under the California Endangered Species Act (CESA), and/or under the federal Endangered Species Act (ESA). Plant species on the California Native Plant Society's California Rare Plant Ranking (CRPR) Lists 1A, 1B and 2A and 2B are also considered eligible for State listing as endangered or threatened pursuant to the California Fish and Game Code (FGC); the CDFW has oversight of these special status plant species as a trustee agency. As part of the CEQA process, such species should be considered, as they meet the definition of Threatened or Endangered under Sections 2062 and 2067 of the California Fish and Game Code. There are occasions where CRPR List 3 or 4 species might be considered of special concern particularly for the type locality of a plant, for populations at the periphery of a species range, or in areas where the taxon is especially uncommon or has sustained heavy losses, or from populations exhibiting unusual morphology.

Two protocol level seasonally appropriate special status plant surveys occurred on April 22, 2021, and July 22, 2021. Results of the survey were negative for special status plants (GHD 2022a). Given both surveys were negative for special status plants, any potential impact to special status plants would be less than significant.

Special Status Mammals/Bats

The NES identified special status species with a moderate or high potential to occur within or adjacent to the Project Area. Special status bat species that have the potential to be present at or near the Project Area include the Townsend's Big-eared Bat (*Corynorhinus townsendii*), Western Red Bat (*Lasiurus blossevillii*), Long-eared Myotis (*Myotis evotis*), and Yuma Myotis (*Myotis yumanensis*). The BSA provides suitable roosting habitat for foliage and tree roosting bats (will roost in woodpecker holes, under loose bark, and basal hollows as well as other cavities). In addition, open water in the vicinity (Mattole River) likely serves as a foraging area for several species (and sources of water for species that need to drink freshwater regularly). Vegetation removal will be limited to minor roadside vegetation and on the landslide surface to install the drains and RSP and to for construction access. Vegetation removal will include minor mowing and minor brush removal. Small trees and shrubs presently leaning on the hillside will be removed (< 12-in dbh).

Special status mammals that have the potential to be present at or near the Project Area include the Sonoma Tree Vole (*Arborimus pomo*), North American Porcupine (*Erethizon dorsatum*), Fisher (*Pekania pennanti*), and the American Badger (*Taxidea taxus*). Construction of the Project could significantly impact special-status mammal and bat species through the removal or modification of vegetation or structures and due to ground disturbance. This impact is considered potentially significant.

Mitigation

Implementation of Mitigation Measure BIO-1 would reduce the potential impact to special status mammals and bats.

Mitigation Measure BIO-1: Protect Special Status Mammals and Bats

- Vegetation immediately outside of the Project Area may serve as roosting habitat for a variety of special status bat species. Should tree removal or limbing occur during the bat maternity season (May 1 through August 30), these trees will be inspected for evidence of roosting bats. If the presence of a maternity roost is confirmed, an appropriate buffer distance will be established in consultation with CDFW to ensure that construction noise will remain below disturbance thresholds for bats until the maternity roost is abandoned. If tree and vegetation removal occur outside of the bat maternity season (September 1 through April 30), no inspection will be required, as no potential impact to maternity colonies will occur.
- No nighttime work is currently proposed, however should it occur, Project-related lighting shall be minimized, either contained within structures or limited by appropriate reflectors or shrouds, and focused on areas needed for safety, security or other essential requirements.
- Deep steep-sided excavations will be covered or ramped if left overnight, to avoid the risk of a nocturnally dispersing terrestrial mammals (e.g., North American Porcupine, American Badger, or Fisher) becoming trapped. Food waste and other trash shall be removed from the site at the end of each workday to avoid attractants. Pets (e.g., dogs) will not be permitted on the construction site.

The implementation of Mitigation Measures BIO-1 would reduce the impact of the Project on special status mammals and bats by requiring pre-construction surveys by qualified biologists prior to work in applicable habitats and measures to avoid take of species to less-than-significant levels.

Special Status and Migratory Birds

No special status avian species were observed in the Project Area during the wildlife observational and habitat survey conducted on February 8, 2021 (GHD 2022a). Additionally, the NES identified seven special status, migratory nesting bird species with a moderate or high potential to occur within or adjacent to the Project Area:

- Cooper's Hawk (*Accipiter cooperii*) – high potential (foraging and nesting)
- Sharp-shinned Hawk (*Accipiter striatus*) – high potential (foraging and nesting)
- Great Egret (Ardea alba) – high potential (foraging and nesting)
- Great Blue Heron (*Ardea herodias*) – high potential (foraging and nesting)
- Golden Eagle (*Aquila chrysaetos*) – moderate potential (foraging)
- Osprey (*Pandion haliaetus*) – high potential (foraging and nesting)
- Bank Swallow (*Riparia riparia*) – moderate potential (foraging)

If present in the Project Area or adjacent to the Project Area during construction activities, special status and protected migratory birds could be injured or killed via clearing and grubbing of vegetation or limbing and removal of trees, and/or potentially displaced from habitat, resulting in a significant impact, unless mitigation measures are incorporated. A potentially significant impact would thus result.

Mitigation

Implementation of Mitigation Measure BIO-2 would reduce the potential impact protected migratory birds, special status, and nesting birds.

Mitigation Measure BIO-2: Protect Migratory, Special Status, and Nesting Birds

- No night work (with new, artificial sources of lighting) may occur within the Project Area or BSA.
- Contractors shall attempt to remove trees and other vegetation that could potentially contain nesting birds outside the bird nesting season (Feb 1 to September 15). If vegetation removal occurs outside the bird nesting season, no further mitigation is necessary. If vegetation removal or construction work occur adjacent to suitable nesting habitat between February 1 and September 15, a qualified ornithologist shall conduct pre-construction surveys within the vicinity of the Project, to check for nesting activity of native birds and to evaluate the site for presence of raptors and special status bird species. The ornithologist

shall conduct at minimum a one-day pre-construction survey within the 7-day period prior to vegetation removal and ground-disturbing activities. If ground disturbance and vegetation removal work lapses for seven days or longer during the breeding season, a qualified ornithologist shall conduct a supplemental avian pre-construction survey before Project work is reinitiated.

- If active nests are detected within the construction footprint or up to 500 feet from construction activities, the ornithologist shall flag a buffer around each nest (assuming property access). Construction activities shall avoid nest sites until the ornithologist determines that the young have fledged, or nesting activity has ceased. If nests are documented outside of the construction (disturbance) footprint, but within 500 feet of the construction area, buffers will be implemented as needed (buffer size dependent on species). In general, the buffer size for common species will be determined on a case-by-case basis in consultation with the CDFW and, if applicable, with USFWS. Buffer sizes will take into account factors such as (1) noise and human disturbance levels at the construction site at the time of the survey and the noise and disturbance expected during the construction activity; (2) distance and amount of vegetation or other screening between the construction site and the nest; and (3) sensitivity of individual nesting species and behaviors of the nesting birds. An absolute minimum buffer size of 30 feet is recommended as a starting point of discussion for common species, with larger buffers expected for special status species and raptors.
- If active nests are detected during the survey, the qualified ornithologist shall monitor all nests at least once per week to determine whether birds are being disturbed. Activities that might, in the opinion of the qualified ornithologist, disturb nesting activities (e.g., excessive noise), shall be prohibited within the buffer zone until such a determination is made. If signs of disturbance or distress are observed, the qualified ornithologist shall immediately implement adaptive measures to reduce disturbance. These measures may include, but are not limited to, increasing buffer size, halting disruptive construction activities in the vicinity of the nest until fledging is confirmed or nesting activity has ceased, placement of visual screens or sound dampening structures between the nest and construction activity, reducing speed limits, replacing and updating noisy equipment, queuing trucks to distribute idling noise, locating vehicle access points and loading and shipping facilities away from noise-sensitive receptors, reducing the number of noisy construction activities occurring simultaneously, and/or reorienting and/or relocating construction equipment to minimize noise at noise-sensitive receptors.

Mitigation Measure BIO-2 requires practicable avoidance and protection measures for protected migratory birds, special status, and nesting birds during construction, thereby reducing any potential impacts. With the implementation of Mitigation Measure BIO-2, potential impacts to protected migratory birds, special status, and nesting birds would be less than significant.

Special Status Amphibian and Reptile Species

The NES identified special status amphibian and reptile species with a moderate or high potential to occur within or adjacent to the Project Area. The NES identified suitable habitat for the Pacific Tailed Frog (*Ascaphus truei*) and the Southern Torrent Salamander (*Rhyacotriton variegatus*) within tributaries within the BSA. Suitable habitat was also identified for the Northern Red-legged Frog (*Rana aurora*) located in seeps with emergent vegetation. Within the Mattole River suitable aquatic habitat exists for the Red-bellied Newt (*Taricha rivularis*) and Western Pond Turtle (*Emys marmorata*).

If present in the Project Area during construction activities, these special status reptile and amphibian species could be injured or killed via crushing, entrapment, or burying (related to ground disturbance), and/or potentially displaced from habitat, resulting in a potentially significant impact.

Mitigation

Implementation of Mitigation Measure BIO-3 would reduce the potential impact to special status amphibian and reptile species.

Mitigation Measure BIO-3: Protection of Special Status Amphibian and Reptile Species

- Disturbance in proximity to wetlands or aquatic habitat, will be restricted to the minimum area necessary.
- Within 24 hours prior to the start of construction, a qualified biologist will conduct a pre-construction survey for special status amphibians and reptiles within the disturbance footprint. Any special status amphibians found will be relocated to nearby suitable habitat outside of the Project Area.

Mitigation Measure BIO-3 requires practicable avoidance and protection measures for special status amphibian and reptile species during construction, thereby reducing any potential impacts. With the implementation of Mitigation Measure BIO-3, potential impacts to special status amphibian and reptile species would be less than significant.

Special Status Fish

According to the Aquatic Resources Delineation Report (GHD 2022c), there is a well-established deeply incised tributary to Mattole River (Cook's Gulch), which flows through a culvert toward the southeast end of the Project Area by the staging areas near a tight curve in the road. An additional tributary, Granny Creek, is located at the northern extent of the BSA. These tributaries are not expected to have suitable connectivity or spawning substrate for salmonid fish species on account of high gradients and culverts. Salmonids are known to occur in the Mattole River and no barriers to fish passage are present in the Project Area. No other suitable salmonid habitat occurs within or adjacent to the Project Area. Additionally, the NES identified four special status fish species with a moderate or high potential to occur within or adjacent to the Project Area:

- Pacific Lamprey (*Entosphenus tridentatus*) – Spawning has been documented in the Mattole River, and suitable spawning, rearing, and migratory habitat is present within the BSA.
- Coho Salmon (*Oncorhynchus kisutch*) – The Mattole River supports populations of this fish species. Suitable spawning, rearing, and migratory habitat is present within the BSA.
- Chinook Salmon (*Oncorhynchus tshawytscha*) – The Mattole River supports populations of this fish species. Suitable spawning, rearing, and migratory habitat is present within the BSA.
- Steelhead (*Oncorhynchus mykiss irideus*) – The Mattole River supports populations of this fish species. Suitable spawning, rearing, and migratory habitat is present within the BSA.

Juvenile salmonids may be present in nearshore portions of the Mattole River. Construction of a coffer dam and dewatering after placement of block nets would result in a temporary loss of shallow shoreline habitat. If any fish are present within the block nets, they would need to be relocated to nearby suitable habitat with short-term stress related to handling. Work would be conducted outside of spawning season. Thus, no loss of spawning habitat or direct impact to spawning is anticipated. If a coffer dam is necessary to isolate the toe of the slope from the wetted channel, the coffer dam would be installed using predominantly hand labor supported with light-weight equipment operating from outside the wetted channel. The coffer dam would not be installed via pile driving or other vibratory equipment. Construction would occur during the dry season (summer/early fall), which is outside of the spawning season for salmonids. Therefore, adults and redds would not be exposed to this stressor. However, juvenile salmonids could be present in the Mattole River in or near the Project Area at the time of construction.

Potential noise effects would be largely related to the presence of heavy construction equipment, grading of the road surface, and placement of rock on the slope. The road surface is well removed from open water, thus listed salmonids in the Mattole River would not be exposed to this stressor as a result of terrestrially-based construction. Rock for RSP would be unloaded on a temporarily constructed access road along the toe of the slope and then individually placed in layers progressing vertically up the slope and longitudinally along the slope. This progression of construction would allow the equipment to operate from the constructed layers of the RSP above and away from the river, keeping trucks at a distance from the river. The primary noise and vibration effects would thus be related to equipment noise rather than rock placement and would remain within typical construction equipment noise ranges, which are well below potentially lethal levels for fish.

Increased turbidity and suspended sediments in the Mattole River may occur as a result of work within the river and adjacent slope, or as a result of upland restoration activities such as riparian vegetation replanting. Because work at

the edge of the river would occur during low water, late summer or fall conditions and because the immediate work area would be dewatered, sedimentation risk would be minimized and localized.

Operating construction equipment in or adjacent to any watercourse, whether it is wet or dry, poses the risk of serious environmental damage if a spill were to occur. The Project requires daily on-site refueling of construction equipment. As a result of that activity, minor fuel and oil spills can occur, and there is always the risk of larger release. Due to the potential need to dewater and the risk of a spill from construction, the impact is potentially significant.

Mitigation

Implementation of Mitigation Measure BIO-4 would reduce the potential impact to special status fish species.

Mitigation Measure BIO-4: Protection of Special Status Fish

- Caltrans shall initiate formal consultation with NMFS in compliance with Section 7 of the ESA.
- All instream work will be completed during the regulated in-water work window, typically mid-June through late October and depending in rainfall.
- Fish relocation will comply with all NMFS and CDFW permit conditions.
- Equipment shall be cleaned of deleterious materials before being delivered to the job site.
- Equipment shall be staged, and materials shall be stockpiled outside riparian habitat, in designated staging and stockpile areas.
- Any new or previously excavated gravel material placed in the channel shall meet California Department of Transportation's (Caltrans) Gravel Cleanliness Specification #227 having a value of 85 or higher.
- Any construction equipment operating adjacent to a stream shall be inspected daily for leaks. Any oil, fuel, and grease residue that has the potential to fall from machinery shall be removed and properly disposed of. Refueling and equipment maintenance will occur in designated staging and stockpiling areas only.
- The awarded contractors shall develop and implement site-specific BMPs, a Water Pollution Control Plan, and emergency spill control plan. The awarded contractor shall be responsible for immediate spill containment and cleanup, as well as proper disposal of hazardous materials and BMPs used during spill recovery.
- Light equipment such as generators, welders, or pumps, or any heavy equipment including water drafting trucks, will use drip pans or other devices (i.e., absorbent blankets, sheet barriers, or other materials) to avoid contamination of surface waters or soils located adjacent to waterbodies.
- Equipment shall be inspected for leaks before each shift, throughout the shift, and at end-of-shift each day.
- All fueling, lubing, and equipment maintenance shall be performed in an environmentally responsible manner at designated upland staging areas only, with all staging locations spatially isolated from watercourses. In the case of equipment has been immobilized due to mechanical failure, every effort shall be made to safeguard against and control the release of contaminants as repairs are being made.
- The functional condition of fuel transfer pumps, hose assemblies, and emergency shutoff switches shall be evaluated prior to fueling operations. Personnel tasked with fueling shall remain near the fuel pump's emergency shutoff switch during fueling operations. The topping off of fuel tanks shall not occur.
- Fuels and lubricants shall not be stored on-site after-hours or on weekends or holidays.
- Maintenance involving the removal or repair of hydraulic cylinders, hoses, or of any reservoirs containing TPH or other deleterious substances, shall be performed over impermeable fabric or other surfaces resistant to such substances.

- Two sealed 5-gallon spill kits shall be kept on-site through the course of the construction. Kits that are used shall be replaced in-kind with new sealed kits. Unsealed spill kits shall be removed from the site as they are oftentimes missing key components necessary during emergency spill situations.
- During work in the dewatered Mattole River channel, an oil boom capable of spanning the wetted portion of said waterbody shall be available each day that such work is to be performed. The oil boom shall be deployed downstream of the Proposed Action, and full width of the wetted channel each time, and for the duration of time equipment is required to work over the wetted channel. Floating absorbent pads, designed specifically to recover TPH from the surface of water, shall be available each day work is to occur over said waterbody. All employees shall know the on-site location of such devices. Furthermore, each employee shall be trained in the functional limitations of such devices, as well as trained in the proper and expeditious deployment of such devices. Pre-construction training is paramount to ensuring rapid containment, recovery, and storage of substances known to be harmful to biological resources and water quality. Employees replacing those initially trained, or any additional employees new to the site shall be fully trained in the use of emergency BMPs as a prerequisite to employment.
- In the event of a spill, the local CDFW office shall be notified and consulted regarding clean-up procedures. Large spills should also be reported to the Office of Spill Prevention and Response, 1700 K Street, Suite 250 Sacramento, CA 95811, or report oil spills to 800-852-7550 or 800-OILS-911.

Mitigation Measure BIO-4 requires practicable avoidance and protection measures for special status fish species during construction. It also requires authorizations and permitting to ensure compliance with the ESA and CESA, thereby reducing any potential impacts. With the implementation of Mitigation Measure BIO-4, potential impacts to special status fish would be less than significant.

Special Status Invertebrates

The NES identified no federally-listed invertebrate species that are expected to occur within the Project vicinity, however two state special status invertebrate species may be present with a moderate or high potential to occur within or adjacent to the Project Area. These species include the Western Ridged Mussels (*Gonidea angulata*), and the Western Bumble Bee (*Bombus occidentalis*). The Project may require temporary dewatering of a small area of the Mattole River to allow placement of RSP. Vegetation removal will be limited to minor roadside vegetation and on the landslide surface to install the drains and RSP and for construction access. Vegetation removal will include minor mowing and minor brush removal.

No special status invertebrates were observed during the February 2021 site visit or April 2021 botanical survey (GHD 2022a). Suitable aquatic habitat exists within the BSA for the Western Ridged Mussels within main channels of the Mattole River, although no suitable habitat is present in the construction disturbance footprint. If present in the construction disturbance footprint at the time of implementation, a potentially significant impact could result. With the implementation of Mitigation Measure BIO-5, the impact would be reduced to a less than significant level.

Suitable habitat for the Western Bumble Bee is present within the BSA, though not within the Project Area, where no impacts to vegetation or nectar sources would occur. The closest known record is from 1969 in Humboldt Redwoods State Park, approximately 11.75 miles northeast of the Project Area (GHD 2022a). There are no recent documented occurrences of this species within the Project Area or nearby (GHD 2022a). Given the Western Bumble Bee is unlikely to be present and the Project involves minimal vegetation removal, a less than significant impact would result.

The Monarch butterfly (*Danaus plexippus*) was listed as a special status species following the completion of the Natural Environment Study (GHD 2022a). No impact would result, as there would be no impacts to large areas of nectar sources or open meadow.

Mitigation

Implementation of Mitigation Measure BIO-5 would reduce the potential impact to special status Western Ridged Mussel.

Mitigation Measure BIO-5: Protection of Special Status Invertebrates

Prior to equipment entry in the channel and concurrent with dewatering, a qualified biologist shall examine the river substrate for the Western Ridged Mussels. If found to be present in the construction disturbance footprint, individuals will be relocated to nearby wetted areas during dewatering efforts by a qualified biologist.

Mitigation Measure BIO-5 requires practicable avoidance and protection measures for special status invertebrate species during construction, thereby reducing any potential impacts. With the implementation of Mitigation Measure BIO-5, potential impacts to special status invertebrates would be less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service? (Less Than Significant Impact)

Riparian areas are vegetated areas adjacent to rivers, streams, and lakes with specific overstory and/or understory plant species that meet the definition of riparian by the CDFW and the Regional Board. Riparian habitat is important to stream health and watershed function due to the runoff and nutrients it filters, cooling effect it has on water temperatures, input of wood and organic debris which acts as strata for macroinvertebrates (one of the fundamental blocks of a healthy food web for many aquatic species), channel structure and input of woody debris to enable natural geomorphological changes.

Sensitive natural communities are listed in the CDFW CNDDB due to the rarity of the vegetation alliance in the statement or throughout its entire range. Sensitive natural communities with state rankings of S1 (Critically Imperiled), S2 (Imperiled), or S3 (Vulnerable) are considered in CEQA impact analysis.

The Project Area includes a very limited and discontinuous riparian corridor of the Mattole River. Work in the Project Area involves removal or trimming of riparian habitat (trees and shrubs) to enable access for equipment, installation of subdrains, culvert replacement, roadway restoration, and RSP at the toe of the landslide. The RSP would be keyed below the anticipated scour depth and extend up the slope a minimum of two feet above the 100-year flood elevation.

Riparian habitat and sensitive natural communities were evaluated in the Project's NES (GHD 2022a). No sensitive natural communities were documented within the Project Area, though Upland Douglas Fir Forest, with a state rank of 3.1, was observed within the BSA; there would be no disturbance to this natural community. Restoration of the hillslope and development of a temporary access road to the Mattole River would result in vegetation removal, including small trees presently leaning on the hillside (< 12-in dbh). Based on the results of the reconnaissance level site visit, the lower landslide below Mattole Road is predominantly scrub habitat, with a few small trees present including Douglas fir, bay laurel, bigleaf maple, red alder, Oregon white oak, and arroyo willow.

Due to the existing slope instabilities, riparian vegetation is largely absent within the Project Area. Layers of live willows and soil will be placed between layers of RSP along approximately 350 feet of river bank. An additional area would be planted with alder and willow to stabilize the slope, reduce erosion potential, and increase shading over the open water (Figure 3 – Project Overview). Once established, the vegetation would result in a net increase in trees and riparian cover of approximately 0.15 acres along the slope. This impact would be less than significant.

The operational phase of the Project would have no impact on riparian habitat and sensitive natural communities.

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? (Less Than Significant Impact with Mitigation)

A Wetland Delineation was conducted to ascertain potential wetland locations within the limits of the Project Area (GHD 2022c). Potential wetland areas were noted based on the observed dominance by hydrophytic vegetation, hydric soils, and wetland hydrology. The entire Project Area was assessed, and a total of 3,107 ft^2 (0.07 acres) of three-parameter wetlands occur within the Project Area, which are intermittently hydrologically connected to the Mattole River, and therefore are likely under the jurisdiction of the USACE and the RWQCB. Additionally, there were 11,064ft^2 (0.260 acres) of Other Waters, delineated at the Ordinary High Water Mark (OHWM), which are intermittently

hydrologically connected to the Mattole River and are therefore defined as and are likely both USACE and RWQCB-jurisdictional aquatic resources. In total, 14,171ft^2 (0.3 acres) of USACE and RWQCB-jurisdictional aquatic resources were observed within the Project Area. The Project is located outside of the Coastal Zone; thus, potential one-parameter wetlands were not evaluated.

Based on the current design, the Project may have permanent and temporary impacts to three-parameter wetlands and Other Waters (Table 3.4-1 – Approximate temporary and permanent impacts to wetlands and Other Waters). These impacts values may adjust in permitting applications as the design progresses. Permanent fill of wetlands could occur where the proposed longitudinal sub-drains bisect an inboard ditch (Figure 4 – Aquatic Resources Delineation Map) running parallel to the roadway, and where the existing roadway would be reconstructed (i.e., widened with four-foot shoulders; this could extend again into the above-mentioned ditch that parallels the western side of the road).

Table 3.4-1 Approximate temporary and permanent impacts to wetlands and Other Waters

	Total Delineated (square feet / acres)	Permanent Impacts (square feet / acres)	Temporary Impacts (square feet / acres)
Three Parameter Wetlands	3,107 / 0.70	2,532 / 0.06	575 / 0.01
Other Waters, Including Ditches	11,064 / 0.25	1,633 / 0.04	9,691 / 0.22
Total	14,171 / 0.32	4,165 / 0.10	10,266 / 0.23

Given the potential need to temporarily dewater the work area along the toe of the landslide (Figure 5 – Dewatering Plan), potential temporary impacts to aquatic habitat of the Mattole River could occur. The RSP would be keyed below the anticipated scour depth, approximately 15 feet below the current river gravel bed, and extend up the slope a minimum of two feet above the 100-year flood elevation. This area will be over excavated at a 1.5:1 slope, the RSP then be placed in the trench and backfilled with the native river material. Additional impacts may include elevated turbidity as well as accidental spills and release of hazardous material.

The existing wetlands ditch along Mattole Road was created for road drainage and has been maintained by HCDPW. The Project's proposed earthen ditch would be similar in size and similarly maintained, resulting in no net loss of wetlands for this feature.

Compensatory mitigation has not been proposed in this ISMND, as the Project's permanent impacts to wetlands and Other Waters are self-mitigating because:

– The existing roadside wetland ditch was created for road drainage and has been maintained;
– The proposed earth ditch would be similar in size and would also be maintained; and
– The Project would result in other environmental benefits by reducing sediment contributions to the Mattole River and expanding riparian extent and quality.

Additionally, the Biological Assessment prepared for the Project commits to monitoring willow plants for a minimum of five years. Annual monitoring and reporting of performance of riparian wetland mitigation will be conducted for a minimum period of five years following construction, in accordance with the USACE regulatory program for the issuance of Department of the Army permits under Section 404 of the Clean Water Act, the Corps' Compensatory Mitigation Rule (2008), and the State Water Quality Control Board requirements under Section 401 Water Quality Certification permitting program. All applicable regulatory agencies, including the CDFW, will be provided copies of these monitoring reports.

Based on the recommendations of the NES and commitments made in the Biological Assessment prepared for the Project, Mitigation Measure BIO-6 has been incorporated into the Project to ensure the impact to wetlands remains less than significant.

Mitigation

Implementation of Mitigation Measure BIO-6 would reduce the potential impact to wetlands.

Mitigation Measure BIO-6: Avoidance and Minimization Measures for Waters of the United States and Waters of the State

To the extent practicable, the discharge of dredged or fill material into waters of the United States and the State, including wetlands, will be avoided. However, complete avoidance may be not feasible, thus the following measures will be implemented:

1. Prior to any discharge of dredged or fill material into waters of the United States, including wetlands, authorization will be obtained from the Corps. For any features determined not to be subject to USACE jurisdiction during the verification process, authorization to discharge will be obtained from the North Coast Regional Water Quality Control Board (NCRWQCB). For fill requiring a USACE permit under Section 404 of the CWA, a water quality certification will be obtained from the Regional Board under Section 401 of the CWA prior to discharge of dredged or fill material. If jurisdictional agencies determine the Project's impacts to wetlands and Waters are not self-mitigating, compensatory mitigation will be designed and implemented to the satisfaction of jurisdictional agencies.
2. Prior to any activities that will obstruct the flow of, alter the bed, channel, or bank of any perennial or intermittent stream, or impact any riparian habitat, notification of streambed alteration will be submitted to the CDFW; and, if required, a Lake and Streambed Alteration Agreement will be obtained from CDFW.
3. If water is present in within the Project Area and dewatering is required, a dewatering plan will be developed for review and acceptance by regulatory agencies at least 15 days prior to the onset of construction.
4. No excavation or equipment operation will occur where flowing water is present.
5. Suitable BMPs, such as silt fences, fiber rolls, or earthen berms will be installed or constructed between work zones and staging and temporary material stockpile areas, and any watercourse to collect loose debris and to intercept sediment during rain events. These structures shall be installed pursuant to Caltrans specifications prior to pending rain events (trigger = greater than 50 percent possibility of rain within the next 24 hours), as forecasted by the National Weather Service. Any sediment caught by the fence or rolls will be removed before the fence/rolls are pulled.
6. Temporary spoils or construction material sites shall be located so as to not drain directly into ditches, streams, or other waterbodies. If a spoils/construction materials site has the potential to drain into a surface water feature, a retention basin, berm(s), or other catchment device shall be constructed or installed to intercept silt-laden storm runoff before it reaches any waterbody. Areas disturbed by construction and temporary storage sites shall be graded, seeded, and mulched upon completion of construction, whether or not they pose the risk of erosion and the off-site release of fine sediment.
7. All construction debris shall be removed from the site in a timely manner and disposed of appropriately.
8. All exposed mineral soil, or stockpiles to remain on-site through the wet season shall be protected from erosion associated with wind and rain (e.g., silt fences, straw bales, straw mulch, and tarps).
9. Any monitoring, maintenance, and reporting required by the regulatory agencies (i.e., USACE, Regional Board, and CDFW) shall be implemented and completed pursuant to established criteria and/or schedules. All measures contained in Project permits or associated with agency approvals shall be implemented in a timely manner.
10. Refueling of equipment will not occur within 100 feet of waters or wetlands.

Mitigation Measures BIO-6 requires protection of juxtaposed remaining waters of the United States and State, including wetlands, avoidance and minimization of permanent impacts and temporary impacts to waters of the United States and State, including wetlands during construction, and restoration of pre-Project conditions at the conclusion of

construction for temporarily impacted wetlands, thereby reducing any potential impacts to wetlands to a less-than-significant level.

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? (Less Than Significant Impact)

Wildlife movement corridors are areas that connect suitable wildlife habitat in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, peninsulas, or areas with vegetative cover provide wildlife corridors. Wildlife movement corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas and facilitate the exchange of genetic traits between populations.

The Project Area is located within the Pacific Flyway for migratory birds. However, no large expanses of high-quality natural habitat exist that would support high levels of migratory species stopover use, breeding, or wintering specifically within the Project Area. The movement of migratory birds would not be altered by the Project, and an impact would not result.

The Project would not result in the creation of barriers to fish passage, as there will be no permanent modification to fish bearing rivers are proposed. Construction would occur during late summer and fall when Mattole River stream flows are at their annual minimum. If wetted at the time of construction, the portion of the Mattole River at the toe of the landslide would be hydraulically isolated and dewatered in accordance with requirements from regulatory agencies. Dewatering would utilize coffer dams and/or other similar structures. Prior to construction, any remaining isolated pools would be surveyed for fish by a qualified biologist to relocate fish (if present), consistent with protocols required by the CDFW, NMFS, and Project regulatory approvals. The maximum duration of time during which a small area of the river may be dewatered is 90 days. Following construction, coffer dams and other structures used during dewatering would be removed. A less than significant construction to fish migration would result during construction. No operational impact would result.

Riparian habitat can function as a wildlife corridor. Maintaining riparian connectivity throughout the Project Area will maintain wildlife habitat and migration corridors. As riparian vegetation is largely absent due to the active landslide, and riparian plantings are proposed, the Project would not substantially alter the ability of wildlife to travel. A less than significant impact would result.

The Project does not include any features that would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. A less than significant impact would result.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (No Impact)

The Open Space and Conservation Element of the Humboldt County General Plan summarizes policies germane to the protection of biological resources. Applicable policies include Wetland Identification (Policy BR-P1), Development Standards for Wetlands (Policy BR-S10), and Wetlands Defined (Policy BR-S11). Policy BR-S10 established that development standards for wetlands shall be consistent with the standards for Streamside Management Areas. Development within a Streamside Management Area requires a use permit from Humboldt County, which the Project would obtain.

Humboldt County does regulate tree removal for trees larger than 12 inches in diameter that are in residential zones through a Special Permit. The small trees that would be removed are <12 inches in DBH. The Project is thus consistent with County policies and ordinances protecting biological resources. No impact would result.

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? (No Impact)

Currently there is not an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plans that cover the Project Area. No impact would result.

3.5 Cultural Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
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		

For this section and in the accompanying Historic Property Survey Report (Roscoe 2009a), and Archaeological Survey Report (Roscoe 2009b), the study area is termed the APE. A Historic Property Survey Report (HPSR) and Archaeological Resources Study (ASR) were prepared for the Project by Roscoe and Associates (Roscoe 2009a and Roscoe 2009b). The studies assessed the potential for surficial and/or buried archaeological and historical resources in the proposed improvement area through the completion of the following:

- Records and literature search at the Northwest Information Center (NWIC) of the California Historical Resources Information Center (CHRIS);
- Further literature review of publications, files, and maps for ethnographic, historic-era, and prehistoric resources and background information;
- Communication with the Native American Heritage Commission (NAHC) to request a review of the Sacred Lands File and contact information for the appropriate tribal communities;
- Contact with the appropriate local Native American Tribes; and
- Pedestrian survey of the Project Area.

Study results were used as a technical basis for evaluating potential impacts to historic and cultural resources under CEQA.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? (No Impact)

A Historic Property Survey Report was completed in 2009 by Roscoe and Associates (Roscoe 2009a). No historic resources, properties or structures were identified within one mile of the Project APE (Roscoe 2009a). Therefore, construction and operation of the Project would have no effect on historic resources within the Project Area. No impact would result.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? (Less than Significant Impact with Mitigation)

An Archaeological Survey Report was completed in 2009 by Roscoe and Associates (Roscoe 2009b). No previously recorded or newly documented archaeological sites were identified in the Project Area, and the setting of the area is an erosional environment with little likelihood that a depositional environment existed before the construction of the road (Roscoe 2009b). In addition, the archaeological sensitivity of the immediate Project Area is very low (Roscoe 2009b).

Native American tribes and individuals and the NAHC were contacted by Roscoe and Associates to discuss the proposed Project. The NAHC responded that no Sacred Lands have been recorded within the Project Area. The

NAHC also provided a Native American contact list. Letters requesting information and/or concerns were sent to all listed Native American contacts on August 21, 2008, and to date, no written response has been received from any of the groups on the NAHC list (Roscoe 2009a).

Although no archaeological resources were observed, in order to provide protection for archaeological resources that may be inadvertently discovered during the course of construction, Mitigation Measure CR-1 would be implemented to establish protocols for inadvertent archaeological discovery.

Mitigation

Implementation of Mitigation Measures CR-1 would reduce the potential impact to archaeological resources by requiring procedures that shall be taken in the event of inadvertent discovery

Mitigation Measure CR-1: Inadvertent Discovery of Archaeological Material

A pre-construction meeting shall be held with field contractors, where the protocols for inadvertent discovery (described below) will be communicated. The following provides means of responding to the circumstance of a significant discovery implementation of the proposed undertaking. If cultural materials for example: chipped or ground stone, historic debris, building foundations, or bone are discovered during ground-disturbance activities, work shall be stopped within 66 feet of the discovery, per the requirements of CEQA (Revised Guidelines, Title 14 CCR 15064.5 (f)). Work near the archaeological finds shall not resume until a professional archaeologist, who meets the Secretary of the Interior's Standards and Guidelines, has evaluated the materials and offered recommendations for further action. Tribal representatives shall be notified.

Implementation of Mitigation Measure CR-1 would reduce the potential impacts to a less-than-significant level during construction because a plan would be implemented to address discovery of unanticipated archaeological resources and to preserve and/or record those resources consistent with appropriate laws and requirements.

c) Disturb any human remains, including those interred outside of formal cemeteries? (Less than Significant Impact with Mitigation)

While the Archaeological Survey Report did not determine archaeological resources were likely to be present within the APE, inadvertent discovery of human remains may still occur. In the event that human remains are encountered during construction, Mitigation Measure CR-2 would be implemented to ensure any potential impact would be less than significant.

Mitigation

Implementation of Mitigation Measure CR-2 would reduce the potential impact to archaeological resources or human remains by requiring procedures that shall be taken in the event of inadvertent discovery.

Mitigation Measure CR-2: Inadvertent Discovery of Human Remains

If human remains are discovered during project construction, work will stop at the discovery location, within 66 feet, and any nearby area reasonably suspected to overlie adjacent to human remains (PRC, Section 7050.5). The Humboldt County Coroner will be contacted to determine if the cause of death must be investigated. If the Coroner determines that the remains are of Native American origin, it is necessary to comply with State laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (PRC, Section 5097). The Coroner will contact the NAHC. The descendants or most likely descendants of the deceased will be contacted, and work will not resume until they have made a recommendation to the landowner or the person responsible for the excavation work for means of treatment and disposition, with appropriate dignity, of the human remains and any associated grave goods, as provided in PRC, Section 5097.98.

Implementation of Mitigation Measure CR-2 would reduce the potential impacts to a less-than-significant level during construction because a plan would be implemented to address discovery of unanticipated human remains and to preserve and/or record those resources consistent with appropriate laws and requirements.

3.6 Energy

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impacts 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

a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? (Less Than Significant Impact with Mitigation)

Construction of the Project would involve a variety of earthwork and construction practices, involving the use of heavy equipment as discussed in Section 3.3 (Air Quality). Construction would require the use of fuels, primarily gas, diesel, and motor oil. In order to assess the potential impact of construction-generated emissions, construction GHG emissions were annualized over an assumed 30-year Project lifespan. Construction emissions were estimated using CalEEMod version 2020.4.0 and were estimated to be approximately 502.5 $MTCO_2e$ from all construction activities (Appendix C). The Project's construction emissions equal 16.75 $MTCO_2e$ per year when annualized over the assumed 30-year lifespan of the Project. Peak travel associated with Project construction would consist of approximately 78 trips (39 round-trips) per day for construction workers, and an average 40 trips (20 round-trips) per day for materials hauling. Construction equipment would remain staged in the Project Area once mobilized. Excess soils, aggregate road base, RSP, and construction materials would be stored within designated staging areas. Excess materials may be re-used on site for backfill and finished grading. Excess materials would not be stockpiled on-site once the Project is complete. The contractor would haul additional excess materials off site for beneficial re-use, recycling, or legal disposal.

Inefficient construction-related fuels use would also be avoided due to the measures in Mitigation Measure AQ-1 (BMPs to Reduce Air Pollution). Equipment idling times would be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes or less (as required by Mitigation Measure AQ-1). Because construction would not encourage activities that would result in the use of large amounts of fuel and energy in a wasteful manner, and the incorporation of Mitigation Measure AQ-1 would reduce idling time, impacts related to the inefficient use of construction-related fuels would be less than significant with mitigation.

Operation of the Project would include periodic maintenance. In the event of storm damage, more significant repairs to the Project may be needed. These activities would generally be supported by vehicles and use of hand-held tools. The use of fossil-fuel powered equipment to support these operational and maintenance activities would be periodic and short-term (occurring intermittently). These activities would not result in a substantial increase in energy use, and would not result in inefficient, wasteful, or unnecessary consumption of fuels or other energy resources

Operation of the Project would not generate additional vehicle trips nor result in an increase in energy use above existing conditions. The potential for wasteful, inefficient, or unnecessary consumption of energy resources would be less than significant with the incorporation of Mitigation Measure AQ-1.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? (No Impact)

There are no local plans for renewable energy that would apply to the Project site. Implementation of the Project would not obstruct a state plan for renewable energy. The Project would not conflict with or inhibit the implementation of the State Energy Action Plan, or other State regulations. The Project would not inefficiently utilize energy due to

incorporation of Mitigation Measure AQ-1, which limits idling time and provides measures to protect air quality. The Project would temporarily require the use of equipment to construct the components of the Project; however, these activities would be temporary and would not interfere with the broader energy goals of the State. Operationally, the Project would not impact operational automobile-related energy consumption. The majority of California's energy-related plans are not directly applicable to the Project or its operations; however, the Project complies with those plan requirements that apply. The Project would therefore not conflict with or obstruct a State or local plan for renewable energy or energy efficiency, as no component of the Project would require an energy source, beyond the temporary use of construction equipment. No impact would result.

3.7 Geology and Soils

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				X
ii. Strong seismic ground shaking?			X	
iii. Seismic related ground failure, including liquefaction?			X	
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 wastewater?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		X		

The Project is located within an existing roadway that traverses residential, industrial, and rural areas with generally flat terrain. Regional geology is likely influenced by seismic activity as a result of the relatively close proximity of the Mendocino Triple Junction to the Project. The Project is located near the Honeydew Fault Zone (Humboldt County 2022c). The Project Area is predominantly comprised of Yorknorth-Windynip complex soils with fifteen to fifty percent slopes; three other soil associations that each cover less than 10% of the Project Area are listed in the Custom Soil Resource Report, located within Appendix H of Appendix D (Natural Environment Study, GHD 2022a).

a.i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. (No Impact)

According to the California Geological Survey (CGS), there are no Alquist Priolo Fault Zones in the Project Area (CGS 2022). The Project is situated between two traces of the Late Quaternary-age Honeydew Fault (Honeydew Fault Zone), located about 650 feet northeast and 1,350 feet southwest of the site (Crawford 2021). This fault is considered “non-active,” per CGS criteria. The nearest “active” fault (defined as surface displacement within the last 11,000 years) is a trace of the Historic-age San Andreas Fault Zone (Shelter Cove Section), located about 10.8 miles south-southeast of the site (Crawford 2021). Project activities, which include shallow excavation and repaving, would not rupture faults in any known fault. No impact would result.

a.ii) Strong seismic ground shaking? (Less than Significant Impact)

As discussed above under Impact a.i), the Project is situated close to the “non-active” Honeydew Fault, located about 650 feet northeast and 1,350 feet southwest of the site, and the “active” San Andreas Fault Zone about 10.8 miles south-southeast (Crawford 2021). Because the Project is located within a seismically active area, the probability that strong ground shaking associated with large magnitude earthquakes would occur during the design life of the Project is high. The Humboldt County coast is a highly active tectonic region that has been subjected to numerous earthquakes of low to moderate strength and occasionally to very strong earthquakes. Seismicity in the region is attributed primarily to the interaction between the Pacific, Gorda, and North American plates. Project implementation would not increase risk of strong seismic ground shaking above existing conditions.

The Project would be designed and constructed in conformance with the site-specific recommendations contained in the geotechnical report prepared for the Project, and any subsequent project-related geotechnical reports. These recommendations would include, but not be limited to, reinforced road embankment, limited subdrainage elements, and slope toe protection. Adherence to the recommendations is required by Environmental Protection Action 1 (See section 1.7.1). By following the recommendations contained in the geotechnical report, the construction and operation of the Project would result in a less than significant impact.

a.iii, a.iv, c, d) Liquefaction, landslides, or otherwise unstable soils? (Less Than Significant Impact)

Liquefaction is the transformation of saturated, loose, fine-grained sediment to a fluid-like state because of earthquake shaking or other rapid loading. Liquefaction is known to occur in loose or moderately saturated granular soils with poor drainage.

Expansive soils can cause considerable distress to roads and building foundations as they “rise-and-fall” in accordance with the cycles of soil wetting (swelling) and drying (shrinking). Soils with high percentages of silicate clays are those that have the potential for shrinking and swelling.

The Project Area is in an active translational/rotational landslide located on a moderately steep, northeast-facing slope within in an area of High Instability (Crawford 2021, Humboldt County 2015). Mapping by the NRCS (2022) shows the Project Area to have the highest percentage of clay content ranging between 10 percent and 30 percent with Plasticity Index values of between 8 and 13. Thus, those soils are considered to have a low to medium potential for expansion. Implementation of the Project would not exacerbate potential liquefaction or landslides, rather the potential for liquefaction or landslides would decrease.

The Project would construct an RSP slope toe buttress along the Mattole River, which would help prevent the river from activating landslide movement by removing toe support through scouring. The Project would also install a reinforced road embankment with subdrainage elements that would provide a strengthened area through the landslide and reduces potential differential settlement caused by further slope movement.

The Project would be designed and constructed in conformance with the site-specific recommendations contained in the geotechnical report prepared for the Project and any subsequent project-related geotechnical reports. Project adherence to the recommendations in the geotechnical report during construction and operation would result in a less than significant impact with mitigation in regard to landslide, lateral spreading, subsidence, or collapse.

b) Result in substantial soil erosion or the loss of topsoil? (Less Than Significant with Mitigation)

Construction activities, including removal of vegetation, excavation, grading, soil compaction, and operation of heavy machinery would disturb soil and, therefore, have the potential to cause erosion. However, the implementation of the Project would enhance the future stability of the site. Erosion and sediment control provisions prescribed in the Humboldt County Municipal Codes, Construction General Permit, and the SWPPP (Environmental Protection Action 1) would be required as part of the Project. Prior to construction, any exclusion areas to protect delineated wetlands or Sensitive Natural Communities would be installed by the contractor pursuant the final construction design plans. The potential to cause erosion is potentially significant.

Mitigation

Implementation of Mitigation Measures GEO-1 would reduce the impact of construction activities on any potential loss of topsoil by addressing BMPs which are designed to stabilize soils and minimize the potential transport of sediment to receiving waters during and post construction.

Mitigation Measure GEO-1: Erosion Control BMPs

To minimize erosion, sediment, and pollutant contribution to the Mattole River, BMPs will be instituted, including:

- Construction will occur in late summer when the chance of precipitation is lowest and Mattole River instream flows are at their annual minimum.
- Construction equipment will be cleaned and inspected prior to use. Equipment maintenance and fueling will be done at designated staging areas. Equipment will not enter the wetted environment of the Mattole River.
- On-site stockpiles will be isolated with silt fence, filter fabric, and/or straw bales/fiber rolls.
- Silt fence or fiber rolls will be placed below the Project areas to contain loose rolling rocks and sediment. Silt fence/fiber rolls will be kept in place and maintained during the entire Project. Any sediment caught by the fence or rolls will be removed before the fence/rolls are pulled.
- Ground disturbed by construction work will be revegetated with fast-growing native grasses and sterile hybrids and mulched when work is complete.
- The site will be monitored by HCDPW personnel during winter rains and any evidence of erosion (rilling, gullies, etc.) will be repaired promptly. In addition, areas where revegetation is not successful will be reseeded and remulched to ensure vegetative ground cover.

Therefore, implementation of Mitigation Measure GEO-1 would reduce this impact to a less-than-significant level for both construction and operation because a plan to address erosion control with BMPs would be implemented.

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 wastewater? (No Impact)

The Project does not propose the installation or modification of septic tanks or wastewater disposal systems. Therefore, construction and operation of the Project would have no impact.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (Less Than Significant with Mitigation)

Paleontological resources are the remains or traces of prehistoric animals and plants. Paleontological resources, which include fossil remains and geologic sites with fossil-bearing strata, are non-renewable and scarce and are a sensitive resource afforded protection under environmental legislation in California. Under California PRC § 5097.5, unauthorized disturbance or removal of a fossil locality or remains on public land is a misdemeanor. State law also requires reasonable mitigation of adverse environmental impacts that result from development of public land and affect paleontological resources (PRC § 30244).

It is unlikely that Project construction would impact potentially significant paleontological resources. The Project does not involve any deep excavation that would be more likely to result in the inadvertent discovery of paleontological resources. In the unlikely event that fossils or other paleontological resources are encountered during construction (i.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants), construction activities would be diverted away from the discovery within 50 feet of the find, and a professional paleontologist would be notified to document the discovery as needed, to evaluate the potential resource, and to assess the nature and importance of the find, as a matter of City and County policy. The potential to cause damage paleontological resources is potentially significant.

Mitigation

Implementation of Mitigation Measures GEO-2 would reduce the impact of construction activities on potentially unknown paleontological resources by addressing discovery of unanticipated buried resources and preserving and/or recording those resources consistent with appropriate laws and requirements.

Mitigation Measure GEO-2: Inadvertent Discovery of Paleontological Resources

In the event that fossils or other paleontological resources are encountered during construction (i.e., bones, teeth, or unusually abundant and well-preserved invertebrates or plants), construction activities shall be diverted away from the discovery within 50 feet of the find, and a professional paleontologist shall be notified to document the discovery as needed, to evaluate the potential resource, and to assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the paleontologist may record the find and allow work to continue, or recommend salvage and recovery of the material, if it is determined that the find cannot be avoided. The paleontologist shall make recommendations for any necessary treatment that is consistent with currently accepted scientific practices. Any fossils collected from the area shall then be deposited in an accredited and permanent scientific institution where they will be properly curated and preserved.

Therefore, implementation of Mitigation Measure GEO-2 would reduce this impact to a less-than-significant level for both construction and operation because a plan to address discovery of unanticipated paleontological resources and to preserve and/or record those resources consistent with appropriate laws and requirements would be implemented.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
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	

Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? (Less Than Significant Impact)

NCUAQMD has not adopted regulations regarding the evaluation of greenhouse gas (GHG) emissions in a CEQA document and has not established CEQA significance criteria to determine the significance of impacts with regard to GHGs. The NCUAQMD has stated that they would not comment adversely on the use of thresholds of significance from the Bay Area Air Quality Management District (BAAQMD) for projects within Humboldt County. However, the BAAQMD has recently revised their adopted recommended CEQA thresholds of significance for GHG. The BAAQMD's Justification Report for the newly adopted greenhouse gas thresholds identify the thresholds as specific for 'development projects' of commercial/residential development and other projects. Per the Draft Justification Report:

> The Air District has developed these thresholds of significance based on typical residential and commercial land use projects and typical long-term communitywide planning documents such as general plans and similar long-range development plans. As such, these thresholds may not be appropriate for other types of projects that do not fit into the mold of a typical residential or commercial project or general plan update.
>
> Lead agencies should keep this point in mind when evaluating other types of projects. A lead agency does not necessarily need to use a threshold of significance if the analysis and justifications that were used to develop the threshold do not reflect the particular circumstances of the project under review. Accordingly, a lead agency should not use these thresholds if it is faced with a unique or unusual project for which the analyses supporting the thresholds as described in this report do not squarely apply. In such cases, the lead agency should develop an alternative approach that would be more appropriate for the particular project before it, considering all of the facts and circumstances of the project on a case-by-case basis.

Additionally, the BAAQMD's Justification Report states:

> There is no proposed construction-related climate impact threshold at this time. Greenhouse gas emissions from construction represent a very small portion of a project's lifetime GHG emissions. The proposed thresholds for land use projects are designed to address operational GHG emissions which represent the vast majority of project GHG emissions. (BAAQMD 2022)

Therefore, as the BAAQMD and NCUAQMD do not have recommended thresholds of significance to apply to construction-period emissions or roadway/infrastructure projects, the Sacramento Metropolitan Air Quality Management District's (SMAQMD) and South Coast Air Quality Management District's (SCAQMD) recommended GHG methodology and thresholds for construction impacts were applied. For Project construction, SMAQMD has a threshold of 1,100 metric tons of carbon dioxide ($MTCO_2e$) per year threshold of significance (SMAQMD 2021). SCAQMD recommends that construction emissions be amortized over the life of the Project, defined as 30 years, and added to the operational emissions for comparison against the threshold of significance.

In order to assess the potential impact of construction-generated emissions, the construction GHG emissions are annualized over an assumed 30-year project lifespan, added to operational emissions, and compared against a threshold of 1,100 $MTCO_2e$.

Project construction activities would result in exhaust emissions from on-road trucks, worker commute vehicles, and off-road heavy-duty equipment. Construction would require clearing, earthmoving, and delivery equipment, as used for similar Projects. Construction emissions were estimated using CalEEMod version 2020.4.0 and were estimated to be approximately 502.5 $MTCO_2e$ from all construction activities, or 16.75 $MTCO_2e$ per year when annualized over the assumed 30-year lifespan of the Project. The Project is not capacity enhancing and would not likely result in more vehicle trips. Required maintenance of the Project would be similar to what maintenance requirements are currently. Therefore, the Project's would not generate an increase in operation-related emissions.

Project emissions of 16.75 $MTCO_2e$ per year (annualized construction) would be less than the 1,100 $MTCO_2e$ threshold. Therefore, the Project's impact would be less than significant.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Less Than Significant Impact)

The California Air Resource Board (CARB) 2017 Climate Change Scoping Plan provides California's climate policy portfolio and recommended strategies to put the State on a pathway to achieve the 2030 target. The scenario includes ongoing and statutorily required programs, continuing the Cap-and-Trade Program, and high-level objectives and goals to reduce GHGs across multiple economic sectors. Existing programs, also known as "known commitments," identified by the 2017 Climate Change Scoping Plan include: SB 350, the Low Carbon Fuel Standard, CARB's Mobile Source Strategy, SB 1383 for short-lived climate pollutants and California's Sustainable Freight Action Plan. The high-level objective and goals recommendations cover the energy, transportation, industry, water, waste management, agriculture, and natural and working lands, and are to be implemented by a variety of State agencies.

Project construction would cause a temporary increase in GHGs; however, as discussed above Project emissions would not exceed the identified emission thresholds. The Project is analyzed for consistency with the 2017 Climate Change Scoping Plan in Table 3.8-1 – Consistency Analysis Between Project and Climate Change Scoping Plan.

Table 3.8-1 Consistency analysis between Project and Climate Change Scoping Plan.

Scoping Plan Reduction Measures	Consistency/Applicability Determination
California Cap-and-Trade Program Linked to Western Climate Initiative. Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California cap-and-trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	**Not Applicable**. This is a statewide measure that cannot be implemented by the Project or lead agency.
California Light-Duty Vehicle Greenhouse Gas Standards. Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	**Consistent**. This is a statewide measure that cannot be implemented by the Project or lead agency. However, the standards would be applicable to the light-duty vehicles that would access the Project Area during construction.
Energy Efficiency. Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	**Not Applicable**. This is a measure for the state to increase its energy efficiency standards in new buildings. The Project would not result in new habitable buildings subject to the energy efficiency standards.
Renewable Portfolio Standard. Achieve 33 percent renewable energy mix statewide. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	**Not Applicable**. This is a statewide measure that cannot be implemented by the Project or lead agency.

Scoping Plan Reduction Measures	Consistency/Applicability Determination
Low Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.	**Consistent**. This is a statewide measure that cannot be implemented by the Project or lead agency. The standard would be applicable to the fuel used by vehicles that would access the Project Area during construction.
Regional Transportation-Related Greenhouse Gas Targets. Develop regional greenhouse gas emissions reduction targets for passenger vehicles. This measure refers to SB 375.	**Not applicable.** This is a statewide measure calling for the development of GHG emission reduction targets.
Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.	**Not applicable.** This is a statewide measure that cannot be implemented by the Project or lead agency.
Goods Movement. Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	**Not applicable.** The Project does not propose any changes to modes of transportation of goods.
Million Solar Roofs Program. Install 3,000 MW of solar-electric capacity under California's existing solar programs.	**Not Applicable.** The Project does not involve structures with roofs.
Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.	**Not applicable.** This is a statewide measure that cannot be implemented by the Project or lead agency.
Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost- effectively reduce greenhouse gas emissions and provide other pollution reduction co-benefits. Reduce greenhouse gas emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive methane emissions and reduce flaring at refineries.	**Not applicable.** This measure would apply to the direct GHG emissions at major industrial facilities. The Project is not industrial.
High Speed Rail. Support implementation of a high-speed rail system.	**Not applicable**. This is a statewide measure that cannot be implemented by the Project or lead agency. The Project does not involve a high-speed rail system.
Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	**Not Applicable**. This is a measure for the state to increase its energy efficiency standards in new buildings. The Project would not result in new habitable buildings subject to the energy efficiency standards.
High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.	**Not Applicable**. The Project would not include air conditioners or commercial refrigerators.
Recycling and Waste. Reduce methane emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero-waste.	**Consistent.** The Project does not include a landfill. The Project would reduce construction waste with implementation of state mandated recycling and reuse mandates.
Sustainable Forests. Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	**Not Applicable**. Although the Project is located in a rural setting, it would not adversely affect forestland. Additionally, the Project would not include areas suitable for reforestation. The Project would replant most native trees removed during construction.
Water. Continue efficiency programs and use cleaner energy sources to move and treat water.	**Not Applicable**. The Project would not include an increase in water consumption or energy use associated with water treatment or transport.
Agriculture. In the near-term, encourage investment in manure digesters and at the five- year Scoping Plan update determine if the program should be made mandatory by 2020.	**Not applicable.** The Project does not include agricultural production.

Source of Scoping Plan Reduction Measures: CARB 2017

As described in Table 3.8-1, the Project is consistent with AB 32, as outlined in the 2017 Climate Change Scoping Plans. Therefore, the Project would not conflict with AB 32 or the 2017 Climate Change Scoping Plan and would result in a less than significant impact.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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	

To evaluate the Project Area with respect to the presence and location of existing and/or historical soil and groundwater contamination, GHD completed a regulatory database review of available online government records. The regulatory database review was completed to identify areas of potentially impacted soil and/or groundwater within and near the Project Area that could potentially pose an exposure risk to humans and/or the environment.

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Less than Significant Impact)

Construction of the Project would include the transport and use of common hazardous materials inherent to the construction process, including petroleum products such as fuel and lubricants for construction equipment and vehicles, paints, concrete curing compounds, and solvents for construction of Project improvements. These materials are commonly used during construction, are not acutely hazardous, and would be used in relatively small quantities.

Hazardous materials storage, handling, and transportation must comply with an interconnected matrix of local, state, and federal laws. Hazardous materials used during construction of the Project will be subject to applicable regulations, including California Health and Safety Code Section 25531, Division 20, Chapter 6.5 and other standards enforced by the various departments and boards under the California Environmental Protection Agency (Cal/EPA). The Project will be subject to Cal/EPA hazardous materials regulations consolidated under the state's Unified Program enforced by the Department of Toxic Substances Control (DTSC), the State Water Resources Control Board (SWRCB), North Coast Regional Water Quality Control Board (Regional Board), NCUAQMD, and the Department of Resources

Recycling and Recovery (CalRecycle). The Cal/EPA administers the Unified Program via local Certified Unified Program Agencies (CUPAs). The CUPA for Humboldt County is the Humboldt County Division of Environmental Health (HCDEH). The HCDEH Hazardous Materials Unit has jurisdiction over the Project area and is tasked with local CUPA inspections and compliance. Project activities involving the transport, use, storage, and disposal of hazardous materials will be in accordance with established rules and regulations.

Worker exposure to hazardous materials is regulated by California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) and requires worker safety protections. Cal/OSHA enforces hazard communication regulations which require worker training and hazard information (signage/postings) compliance. In addition, hazard communication compliance includes procedures for identifying and labeling hazardous substances, communicating information related to hazardous substances storage, handling, and transportation; and preparation of health and safety plans to protect employees.

Project construction specifications will require the management of hazardous materials to comply with applicable laws, rules, and regulations. During Project construction, the contractor would be required to contain hazardous materials and avoid exposure to workers, the public, and surrounding environment during construction. An appropriate facility would be utilized for legal disposal of any hazardous materials generated.

Project construction would be required to implement stormwater management requirements during construction in accordance with the State Water Resources Control Board General Construction Storm Water Permit (Section 1.7.1 – Environmental Protection Action 1). Stormwater management requirements for addressing materials management would be required, including proper material delivery and storage, spill prevention and control, and management of concrete and other wastes, as described in Section 3.10 (Hydrology and Water Quality).

The established regulatory framework, BMPs, and requisite construction protocols provide appropriate risk mitigation and hazard protections, thus the Project would not create a significant hazard to the public or environment from hazardous materials. Because the County and its contractors would be required to comply with existing and future hazardous materials laws and regulations addressing the transport, storage, use, and disposal of hazardous materials, the potential to create a significant hazard to the public or the environment during Project construction would be less than significant.

Following construction, operation of the Project would require intermittent maintenance and repair, which could involve hazardous materials. The operational risk posed by intermittent maintenance and repair of the road specific to hazardous materials is low. The potential to create a significant hazard to the public or the environment during Project operation would be less than significant.

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? (Less than Significant Impact with Mitigation)

The Project would utilize heavy machinery to perform construction-related tasks including grading, excavation, and transportation of materials. During any construction project involving operation of equipment, there is the possibility for an accident to occur, and fuel to be released onto the soil. A potentially significant impact could result from an accidental spill, especially in proximity to a wetland or waterway. This potential impact is addressed under Mitigation Measure BIO-4 (see Section 3.4 – Biological Resources). Mitigation Measure BIO-4 includes requirements to avoid refueling and equipment maintenance near streams and wetlands. Under Mitigation Measure BIO-4, equipment shall not be refueled within 100 feet of any perennial wetlands or waterways as well as other requirements as described in Mitigation Measure BIO-4 to protect the environment from the accidental release of hazardous materials. With the incorporation of Mitigation Measure BIO-4, any potential impact related to streams and wetlands from an accidental spill would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (No Impact)

Honeydew Elementary is the nearest school to the Project site, located approximately 3.6 miles east, or 5.5 miles along Mattole Road (NCES 2022). This is further than 0.25 miles. No impact would result.

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? (No Impact)

The Project Area is not located on, or within one mile of a site listed in the DTSC EnviroStar database (DTSC 2022). Further, the Project Area is not located on or within one mile of a site included in the Cal/EPA's list of Sites Identified with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit, nor is the Project Area located on or within one mile of any site included in Cal/EPA's list of active Water Board Cease and Desist Orders and Cleanup and Abatement Orders (Cal/EPA 2022). No impact would result.

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? (No Impact)

The Project Area is located approximately 17 miles north of the Shelter Cove Airport (0Q5). The Shelter Cove Airport is covered by the 2021 Airport Land Use Compatibility Plan (ALUCP) prepared for the Humboldt County Airport Land Use Commission (ALUC) by ESA. Per the ALUCP, the Project Area is not located within the Airport Influence Areas (AIA) (ESA 2021). Given the Project is not located within two miles of a public airport and is outside the AIA, no impact would result.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Less than Significant Impact)

The Project Area is covered under the Humboldt County EOP. The Humboldt County EOP identifies the emergency response and evacuation policies and procedures for hazards related to earthquake, tsunami, extreme weather, flooding/flash flooding, landslides, transportation accidents, hazardous materials, interface wildlife fire, energy shortage, offshore toxic spill, civic disturbance, terrorist activities, and national security (Humboldt County 2015).

The Humboldt County EOP establishes a structure for Humboldt County Operation Area agencies to respond to large-scale emergencies requiring multiagency participation or activation of the Humboldt County Emergency Operations Center (EOC) (Humboldt County 2015). Hazard mitigation and risk assessment strategies for Humboldt County Operation Area are formalized in the Humboldt County Operational Area Hazard Mitigation Plan (HMP).

Temporary road closure (up to one hour) would be required during Project construction as described in Section 1.5.3 (Construction Traffic and Access Control). Signage, notifications, and timing for road closure, as applicable, would be established in accordance with the County of Humboldt requirements. Emergency response vehicles would not be impeded during road closures.

The Project would not impair implementation or physically interfere with the established Humboldt County EOP, or Humboldt County HMP. Once constructed, operational use of the Project would enhance transportation along Mattole Road. Thus, emergency response or evacuation via existing roadways would not diminish compared to existing conditions. As the Project would not impair implementation of an emergency response plan or evacuation plan, the potential impact related to the temporary closure of Mattole Road during construction would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? (Less than Significant Impact)

Wildland fire is addressed in Section 3.20 (Wildfire). As noted in Section 3.20, the Project would not expose people or structures to a significant risk from wildland fires, thus a less than significant impact would result. Please see Section 3.20 for further discussion of the Project as it relates to wildland fire risks.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
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;		X		
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;			X	
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			X	
iv. impede or redirect flood 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 groundwater management plan?				X

The Project Area is in the Lower Mattole River watershed. The Project Area contains the Mattole River, a Clean Water Act section 303(d) listed for impairment associated with excessive sediment and high water temperatures (EPA 2002).

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? (Less Than Significant Impact with Mitigation)

The Project is required to obtain and comply with necessary Clean Water Act permits requirements from the Regional Board and USACE, to ensure the Project does not violate any water quality standards or waste discharge requirements.

Construction activities such as site clearing, grading, excavation, and material stockpiling, placement of aggregate base, and related construction activities could leave soils exposed to rain or surface water runoff that may carry soil contaminants (e.g., nutrients or other pollutants) into waterways adjacent to the site, degrade water quality, and potentially violate water quality standards for specific chemicals, dissolved oxygen, suspended sediment, or nutrients to the Mattole River. The greatest potential Project impacts to water quality would result from sediment mobilization during construction. In-water work would be required to construct the RSP at the toe of landslide in the Project Area. If not properly managed, construction activities could result in erosion, as well the discharge of chemicals and materials. In such an instance, applicable water quality standards and waste discharge requirements could be violated, and polluted runoff could substantially degrade water quality in the local storm drain system. This impact is considered to be potentially significant.

However, as described in Section 1.7.1 (Environmental Protection Action 1), because the proposed Project is anticipated to disturb over one (1) acre of land, compliance with State Water Board Order No. 2009-0009 would be required which will regulate stormwater runoff from Project construction activities. Project operations will obtain coverage under State Water Resources Control Board Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities, as amended by Order No. 2012-0006. In compliance with the National Pollutant Discharge Elimination System requirements, a Notice of Intent would be prepared and submitted to the North Coastal Regional Water Board prior to undertaking construction, providing notification and intent to comply with the State of California Construction General Permit (CGP). In addition, a SWPPP would be prepared for pollution prevention and control prior to initiating site construction activities.

The Construction SWPPP would be written by a Qualified SWPPP Developer (QSD); would identify and specify the use of best management practices (BMPs) erosion control, sediment control, off-site tracking control, wind erosion control, non-stormwater management control, and waste management and materials pollution control. A sampling and monitoring program would be included in the Construction SWPPP that meets the requirements of the CGP to ensure the BMPs are effective. A Qualified SWPPP Practitioner (QSP) would oversee implementation of the Plan, including visual inspections, sampling and analysis, and overall compliance with the SWPPP and CGP.

Construction would occur during the in-water work window, June 15 to October 31, when Mattole River stream flows are at their annual minimum. Diversion and/or dewatering would occur if there were water in the Project construction limits at the time of construction.

A variety of channel conditions are possible within the BSA at the time of construction. The following are four potential channel scenarios, summarized below. Each scenario will require different fish relocation and dewatering methods. Given the current streamflow regime and channel geometry within and near the BSA, Scenario 1 and Scenario 2 are considered the most likely to occur. However, given the potential for the channel geometry to adjust within or near the BSA as a result of a winter or spring flood event prior to construction, Scenario 3 and Scenario 4 are also evaluated.

– Scenario 1: no water against the river left bank in the BSA at the time of construction; dewatering and fish and invertebrate relocation would not be required;
– Scenario 2: a disconnected side channel remains against the river left bank in the BSA at the time of construction; limited dewatering and fish and invertebrate relocation may be required;
– Scenario 3: a fully connected side channel remains against the river left bank in the BSA at the time of construction; limited dewatering and fish and invertebrate relocation would be required; or
– Scenario 4: the main channel of the Mattole River may be fully flowing against the river left bank in the BSA; dewatering and fish and invertebrate relocation would be required.

Scenario 1 would not require dewatering. If water is present in the channel during construction under Scenario 2, Scenario 3, or Scenario 4, dewatering would be required. Scenario 4 would include the maximum area of dewatering, up to approximately 600 feet of the channel (encompassing 0.49 acres) may need to be dewatered (Figure 5 – Dewatering Plan). However, the actual extent of dewatering is expected to be much lower (Scenario 2 or Scenario 3), as this section of the Mattole River usually goes dry in the summer months, according to USGS records and available aerial photography from prior years. Under Scenario 2 or Scenario 3, the actual area to be dewatered would be less than 600 feet (0.49 acres) and dependent upon streamflow conditions and channel geometry within the BSA at the time of construction. A shorter coffer dam would be required for Scenario 2 or Scenario 3, compared to Scenario 4. If a coffer dam is necessary to isolate the toe of the slope from the wetted channel, the coffer dam would be installed using predominantly hand labor supported with light-weight equipment operating from outside the wetted channel. The coffer dam would not be installed via pile driving or other vibratory equipment. The maximum duration of time during which a small area of the river may be dewatered under Scenario 2, Scenario 3, or Scenario 4 is 90 days (may range from 60 to 90 days). Turbid nuisance water will be pumped to an upland area for infiltration as necessary or will be reused for dust suppression and soil compaction during road embankment construction, and not directly discharged to a water body in compliance with the Project's Stormwater Pollution Prevention Plan (SWPPP). Following construction, coffer dams and other structures used during dewatering would be removed.

For scenarios requiring dewatering (Scenario 2, Scenario 3, or Scenario 4), fish relocation would also be required. Qualified fisheries biologist(s), with technical assistance from agency staff (NMFS, CDFW), will assist in developing specific methodology in a Dewatering and Diversion Plan based on current and/or existing site conditions. The Dewatering and Diversion Plan will be submitted to NMFS and CDFW for review at a minimum of 30 days before construction commencement. A snorkel survey to estimate current fish counts may be conducted in the month of May prior to construction to inform relocation efforts. Current conditions would be recorded, including streambed composition (e.g., cobble, sand, etc.), to determine whether the substrate is suitable for fish to hide (e.g., cobble, boulders) or is too fine for fish to be present. Fish relocation would likely include seining with water bladder installation (if needed), and electrofishing conducted after seining (if needed). In the event that the side channel is blocked or has shallow water levels, it may not be possible to herd fish. Prior to construction, any remaining isolated pools would be surveyed for fish. A qualified biologist would be present during any dewatering to relocate fish (if present), consistent with protocols required by the CDFW, NMFS, Project regulatory approvals, and Mitigation Measures BIO-4 and BIO-5.

If wetted at the time of construction (Scenario 2, Scenario 3, or Scenario 4), the portion of the Mattole River at the toe of the landslide would be hydraulically isolated and dewatered to create a work area in accordance with requirements from regulatory agencies. Heavy equipment would be operated from the streambank to place RSP along the bank or the isolated and dewatered channel. Equipment entry into the channel would be limited and constrained to the isolated portion of the channel only. Dewatering would utilize coffer dams and/or other similar structures (Figure 5 – Dewatering Plan).

A final Dewatering and Diversion Plan would be developed by the contractor awarded the construction project and would be subject to review/approval by the HCDPW. The final Dewatering and Diversion Plan would cover Scenario 2, Scenario 3, and Scenario 4. The final plan is anticipated to be very similar to the draft plan and would be tailored to the contractor's specific construction techniques and phasing. The draft plan includes installation of approximately three pumps to be located on the edge of the Mattole River within the BSA. The pumps would be routed to the Mattole River downstream of the work isolation area via 6-in polypropylene (PP) pipe. All pumps would be screened to avoid inadvertent fish entrainment. Fish screening specifications would be consistent with those required by CDFW and NMFS (e.g., mesh no greater than 3/32-in opening). The pumps would be powered with gasoline or diesel generators. Generators would be operated at the lowest revolution per/minute needed to operate the pump(s) and minimize noise.

East of Mattole Road on the upslope side of the road, three longitudinal sub-drains with a minimum width of 4 feet would start near the top of the landslide and extend downslope approximately 300 feet to the roadway. The sub-drains are comprised of permeable drain rock and geotextile fabric and intended to intercept subsurface flow. The three longitudinal sub-drains would include approximately four lateral sub-drains each with a minimum width of 2 feet. The longitudinal sub-drains would bisect an inboard ditch running parallel to the restored roadway and continue underneath the roadway. West of Mattole Road on the downslope side of the road, the longitudinal sub-drains would daylight into outlet pipes and discharge into energy dissipaters.

Implementation of Environmental Protection Action 1, combined with Mitigation Measures BIO-4 and GEO-1, would reduce potential water quality impacts during Project construction activities to a less-than-significant level by requiring measures to minimize erosion, sediment, and pollutant contribution to the Mattole River.

Following construction, operation and maintenance of the Project would not result in a new point discharge or a substantial increase in impervious surfaces relative to the surrounding area. Therefore, less than significant operational impact would result.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? (No Impact)

The Project is located in the Honeydew Town Area Groundwater Basin 1-029 (DWR 2004), which has a SGMA Basin Priority of Very Low and is not listed as Critically Overdrafted (DWR 2019). Contractor-supplied water would be used during construction for dust suppression on local roadways and work areas. Use of groundwater is not anticipated for construction of the Project, although dewatering sections along the Mattole River may be necessary and discussed in impact "a". Similarly, the Project would not decrease groundwater supplies or interfere with groundwater management. During roadway construction, isolated and short-duration groundwater dewatering may occur as needed and would be

small in scale and limited to shallow groundwater only. The construction-related impact on groundwater levels would not result. Following construction, the Project would not utilize groundwater and would not result in an increase in population or employment that would indirectly increase groundwater demand. The Project would improve drainage along the slope into Mattole River but would not alter groundwater recharge. Therefore, the Project would not create a deficit in aquifer volume or a lowering of water levels. Additionally, the amount of impervious surface created by the Project is minimal since the current gravel road is compacted, and the paved road would be consistent with the previous conditions in the area. The Project is not expected to result in any change in the use or recharge of groundwater. No operational impact would result.

c.i) 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 result in substantial erosion or siltation on- or off-site? (Less Than Significant Impact with Mitigation)

The Project would add approximately 0.3 acres of impervious surfaces to the Project Area through the repair of the road. The sloped hillside has existing culverts, and the Project would replace a culvert, add additional drainage inlets and install subsurface drainage, avoiding a risk of substantial erosion resulting from stormwater events.

Erosion and sediment prevention would be implemented during construction to avoid impacts to water quality, including those related to siltation (see impact “a”, above). The Project would be required to adhere to BMPs and conditions to be included in a SWPPP and CWA Section 401 and 404 permits, including Mitigation Measure GEO-1, to prevent erosion-related impacts during construction. Substantial on- or off-site erosion and siltation would not result, and the potential construction-related impact with regard to erosion and siltation would be less than significant. The Project would install riprap and live willows at discharge sites, therefore, with Mitigation Measure GEO-1 the operational impact would also be less than significant.

c.ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? (Less Than Significant Impact)

A small portion of the Project Area is located in the FEMA 100-year flood zone; however, the road is outside of the flood zone. Within the Project Area, existing stormwater drainage systems along the road are minimal and stormwater is generally discharged into Mattole River. The current gravel road is highly compacted, with minimal water infiltration. The Project would repair the road to be consistent with previous conditions. An inboard ditch, culvert, and subsurface drainage would also improve runoff. The potential impact to on- and off-site flooding would be less than significant.

c.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? (Less Than Significant Impact)

Within the Project Study Boundary existing stormwater drainage systems along the road are minimal and stormwater is generally discharged into the Mattole River. Under existing conditions, there are no signs of localized flooding within the Project Area. The Project would improve drainage systems with the replacement of a culvert, and the installations of subsurface drainage.

Grading would occur during summer and fall months when conditions are driest, to minimize the risk of rainfall during the construction period and thus stormwater runoff when graded soils are exposed. As discussed above in Hydrology and Water Quality Impact (a), requirements of the SWPPP, CWA Section 401, CWA Section 404 permits, and GEO-1 would also be implemented, including measures to prevent polluted stormwater runoff during construction. Thus, any construction-related impact would be less than significant.

Operationally, the Project does not include elements that would significantly alter topography and rates of stormwater runoff. The potential operational impact would be less than significant.

c, iv) Impede or redirect flood flows? (Less Than Significant Impact)

A small portion of the Project Area is located in the FEMA 100-year flood zone. However, the road is outside of the flood zone, no structures are proposed within the flood zone, and the Project design does not include any features that would impede or redirect flood flows. The RSP would be keyed below the anticipated scour depth and extend up the slope a minimum of two feet above the 100-year flood elevation and would not change existing river conditions. The road would not impede or redirect flood flows in a manner different than existing conditions. Any potential impact on the impediment or redirection of flood flows would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? (Less Than Significant Impact)

The Project Area includes areas within the Mattole River, with sections along the lower slope within the FEMA 100-year flood zone (GHD 2022a). Excavation for the RSP would occur in the FEMA 100-year flood zone. As portions of the Project Area overlap the FEMA 100-year flood zone, construction would not occur during flood conditions (see Section 1.5.1 – Construction Schedule). Thus, there would be no potential for a flood-related release of pollutants during construction. The Project does not include unsecured elements that could be washed away during a flood. Any potential construction related impact would be less than significant.

The Project Area is not located near a larger isolated body of water that may be affected by a seiche. The Project Area is not located within a tsunami hazard zone (CGS 2021). No impact from a seiche or tsunami would result.

Operational maintenance of the road may involve occasional repair, trash/debris removal, and vegetation maintenance (e.g., mowing), which could involve hazardous materials (e.g., small equipment fuel). However, these materials would not be stored within the Project Area and thus would not be released into the environment in the event of a flood event. Any potential operational related impact would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? (No Impact)

The relevant water quality control plan is the NCRWQCB's Basin Plan which establishes thresholds for key water resource protection objectives for both surface waters and groundwater. The Project does not involve the use of groundwater resources and would not impact the quantity or quality of groundwater availability in the Honeydew Town Area Groundwater Basin.

Per Environmental Protection Action 1 (see Section 1.7.1), the Project would be required to obtain coverage under SWRCB Order No. 2009-0009-DWQ, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction and Land Disturbance Activities, which would include development and implementation of a SWPPP. The Project is also required to obtain and adhere to CWA Section 401 and CWA Section 404 permits (see Section 1.7.2 – Required Regulatory Permits). Adherence to these regulatory requirements and associated requisite monitoring would ensure a conflict with the Basin Plan does not occur.

The Project would meet and/or support the following Humboldt County General Plan Water Resource Element goals and policies that regulate hydrology and water quality during construction and operation of the Project: Storm Drainage (Policy WR-G10), Erosion and Sediment Discharge (Policy WR-P10), County Facilities Management (Policy WR-P11), Implementation of NPDES Permit (Policy WR-P35), Natural Stormwater Drainage Courses (Policy WR-P36), Erosion and Sediment Control Measures (Policy WR-P42), Storm Drainage Design Standards (Policy WR-P43), Storm Drainage Impact Reduction (Policy WR-P44), and Reduce Toxic Runoff (Policy WR-P45). No impact would result.

3.11 Land Use and Planning

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
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

a) Physically divide an established community? (No Impact)

The proposed Project would not divide an existing neighborhood or community. Rather, the road would enhance community connectivity by providing enhanced safety for all modes of transportation by repairing the dilapidated one-lane road into a paved two-lane road. Traffic control would be necessary during construction, but a single travel lane would be maintained through the construction site. However, short closures less than an hour may be needed during infrequent equipment/material deliveries and/or road construction. No impact would result.

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? (No Impact)

The proposed Project would be located within the existing Humboldt County ROW. The Project is not located within the Coastal Zone. Change in land use within the Project would not occur. No impact would result.

3.12 Mineral Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?			X	
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	

a, b) 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, or a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? (Less than Significant Impact)

The Project would require minor use of rock, gravel, sand, and other similar materials, but is not expected to have any significant impact on locally available minerals or mineral resources valuable to the region or the State. Additionally, the Project Area is also not designated by the Humboldt County General Plan, or other local land use plan as having locally important mineral resources within the Project Area (Humboldt County 2017). The impact would be less than significant.

3.13 Noise

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Result in 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) Result in 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

Current noise conditions on and near the Project Area consist of local traffic along Mattole Road, as well as the adjacent local roadways along the proposed alignment. There is one sensitive receptor approximately 400 feet north of the Project Area, which is a residential home. The nearest school is approximately 3.6 miles east.

a) Result in 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? (Less than Significant Impact)

Construction

Construction of the Project would result in a temporary noise increase associated with the use of construction equipment. Construction is expected to require approximately 100 working days to complete and would occur in 2023. Construction activities would be limited to daytime work hours between 7:00 a.m. to 7:00 p.m., Monday through Friday with occasional work on Saturdays. Furthermore, Humboldt County has not established construction-related noise standards. As the construction phase would be temporary and construction activities would be intermittent and limited to between 7:00 a.m. and 7:00 p.m., potential noise impacts generated during the construction phase would be less than significant. In addition, Humboldt County has not established construction-related noise standards. Thus, construction of the Project with not conflict with a County noise standard.

Operation

The Humboldt County General Plan includes Standard N-S1, which specifies that the Land Use/Noise Compatibility Standards shall be used as a guide to ensure compatibility of land uses. Development may occur in areas identified as “normally unacceptable” if mitigation measures can reduce indoor noise levels to “Maximum Interior Noise Levels” and outdoor noise levels to the maximum “normally acceptable” value for the given land use category. Once the Project is constructed, users would not generate a significant amount of noise in excess of County standards. Noise associated with the operation of the road would be generally consistent with the rest of Mattole Road, in fact the associated noise would be reduced from the current gravel road. Therefore, Project operation would not result in noise levels exceeding the County’s noise standards for public right of way land uses and would not generate a substantial temporary, or permanent, increase in ambient noise levels in the vicinity of the Project. A less than significant impact would result.

b) Result in generation of excessive groundborne vibration or noise levels? (Less than Significant Impact)

The County has not established vibration limits to minimize the potential for cosmetic damage to buildings. However, Caltrans recommends a vibration limit of 0.5 inches/second peak particle velocity (PPV) for buildings structurally sound and designed to modern engineering standards, 0.3 inches/second PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.08 inches/second PPV for ancient buildings or buildings that are documented to be structurally weakened. No known buildings that are documented to be structurally weakened or ancient adjoin the Project Area. Therefore, the 0.5 inches/second PPV limit would apply when considering the potential for groundborne vibration levels to result in a significant vibration impact.

The noise and vibration evaluation assessed typical vibration levels that could be expected from construction equipment at a distance of 25 feet, inclusive of required equipment and methods for all four potential construction options. Project construction activities, such as drilling, the use of jackhammers, and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may generate substantial vibration in the immediate vicinity.

Table 3.13-1 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet (Caltrans 2020c). High-power or vibratory tools and rolling stock equipment (e.g., tracked vehicles, compactors), may generate substantial vibration in the immediate vicinity. Vibratory rollers typically generate vibration levels of 0.210 inches/second PPV at a distance of 25 feet. Vibration levels are highest close to the source and attenuate with increasing distance. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

Table 3.13-1 Typical vibration levels for construction equipment used during Project construction (Caltrans 2020c).

Equipment	Reference PPV at 25 ft. (in/sec)
Vibratory Roller	0.210
Large Bulldozer	0.089
Caisson drilling	0.089
Loaded trucks	0.076
Jackhammer	0.035
Small bulldozer	0.003
Crack-and-seat operations (specific pavement rehabilitation process)	2.4

Project-related activities would not involve the use of explosives or other intensive construction techniques that could generate significant ground borne vibration or noise. The coffer dam would be installed using predominantly hand labor supported with light-weight equipment operating from outside the wetted channel. The coffer dam would not be installed via pile driving or other vibratory equipment. The Project may also utilize a vibratory roller, large bulldozer, and jackhammer. Geotechnical drilling would be required for a single day. Noise impacts from ground borne noise to humans are anticipated to be minor.

Vibration impacts to residences are anticipated to be minor as the closest residences are located approximately 400 feet away from the Project Area. Rock for RSP would be unloaded on a temporarily constructed access road along the toe of the slope and then individually placed in layers progressing vertically up the slope and longitudinally along the slope. The primary noise and vibration effects would thus be related to equipment noise rather than rock placement and would remain within typical construction equipment noise ranges. Minor vibration adjacent to mechanized

equipment and road treatments during construction work would be generated only on a short-term basis. Therefore, groundborne vibration and noise would have a less than significant impact.

Following construction, operation of the Project would not result in groundborne vibration or groundborne noise consistent with current use. Project operation would not generate vibration, except in instances where larger repairs to the road might be required. These conditions would be short-term and temporary (taking from one to several weeks to complete depending on the extent of damage or other circumstances); therefore, no operational impact would result.

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? (No Impact)

The Project Area is located approximately 17 miles north of the Shelter Cove Airport. The Project is not located within an airport land use plan. Therefore, the Project would not expose people residing or working in the Project Area to excessive noise levels. No impact would result.

3.14 Population and Housing

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

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)? (No Impact)

The Project would not be growth-inducing and would not result in the need for construction of new homes or businesses directly or indirectly. No new roads, extension of water or sewer utilities, or other infrastructure would be installed or constructed that would indirectly allow for additional residential units or commercial uses to be constructed. Further, the Project does not include any residential units or other development that would directly induce population growth. The Project is intended to serve the existing community and future regional usage of the Mattole Road but is not considered growth inducing. Given the modest level of construction required for the Project, it is reasonable to anticipate that workforce requirements for construction can be met through the local labor force within the region. Maintenance of the proposed road would be performed by existing County staff. Due to these reasons, the Project would not induce population growth directly or indirectly, and no impact would result.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? (No Impact)

Implementation of the Project would not displace existing housing units or residents. The construction of replacement housing would not be necessary. No impact would result.

3.15 Public Services

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

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for public services? (No Impact)

The Project would be restoring the current dilapidated one lane gravel road to a paved two lane consistent with previous and surrounding conditions. This would enhance public service capabilities in the rural surrounding area. The Project would not necessitate any related new or altered public service facilities. The Project would not result in an increase in student population, and therefore, no new or expanded schools would be required. Overall, there will be no impact.

3.16 Recreation

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) 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) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

a) 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)

The Project proposes no new recreational amenity within Humboldt County. The road would provide enhanced access between the communities of Honeydew and Petrolia, and between Humboldt Redwoods State Park and the north end of the Lost Coast. The proposed road would not increase transportation between the area but would make it safer for users to travel throughout the region. The Project also does not include, or impede, access to recreation. No impact would result.

b) Include or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? (No Impact)

The Project would not create, or utilize, or require construction of any recreational facility. As discussed above, the proposed road would improve safety. No impact would result.

3.17 Transportation

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?			X	
b) 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	

The Project would repair a currently dilapidated, single lane, gravel road into a paved two-lane road, enhancing connectivity, safety, and emergency access in the rural area.

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? (Less than Significant Impact)

The primary roadway for the rural community around the Project Area is currently limited to a one-way gravel road. The Project would repair the one-way gravel road to a two-lane paved road, increasing connectivity. Construction would result in vehicle trips by construction workers and haul-truck trips for material off-haul and deliveries via Mattole Road from the north and east where it connects to US 101. Construction-related traffic would be temporary, would vary on a daily basis, and would be distributed over the course of a workday and work week. The number of construction-related vehicles traveling to and from the Project Area would vary on a daily basis.

The construction would include a proposed temporary traffic control plan, and if necessary, temporary road closures of up to an hour may occur during construction in accordance with County standards. Therefore, through compliance with local requirements, construction activities would not result in substantial adverse effects or conflicts with the local roadway system. The temporary construction impact on the circulation system would be less than significant.

Once complete, the proposed Project is not expected to significantly increase vehicle traffic and would not increase the area's population or redirect traffic patterns. The Project would support increased non-motorized travel to and from the area by repairing the road shoulder. The Project would incorporate traffic safety measures, such as stop and yield signs on the roadway and would not conflict with effective circulation system performance. The Project is consistent with multiple plans and policies addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, and is further described in Section 3.11 (Land Use and Planning). Based on the above, the Project: (1) would not conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system; (2) would take into account all modes of transportation, including non-motorized travel. Therefore, a less than significant impact would occur.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? (Less than Significant Impact)

Pursuant to SB 743 and the current CEQA Guidelines, evaluation of a project's potential transportation impact requires consideration of vehicle miles traveled (VMT), which refers to the amount and distance of automobile travel attributable to a project. Section 15064.3, subdivision (b), of the CEQA Guidelines lists the criteria for analyzing transportation impacts from proposed projects. The criteria are broken into four categories, including land use projects, transportation projects, qualitative analysis, and methodology. Transportation projects that reduce, or have no impact on, VMT should be presumed to cause a less than significant transportation impact. This section was recently added

by the state legislature in an attempt to separate CEQA's purpose and role from traffic or other issues related to ease of use of single occupancy vehicles.

Examples of projects that result in the potential to increase VMT include:

– Changes in land use
– Expanded roadways (e.g., new roads, additional lanes)
– Private development
– Expanded public service facilities, such as new police stations, new fire stations, or new administrative buildings
– Residential development, such as a new sub-division

The proposed Project includes none of the above listed elements, as it would be repairing the existing roadway, and does not include any component that could be characterized as resulting in a potential increase to VMT. Per the California Office of Planning and Research's guidelines for evaluating transportation impacts in CEQA, for roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements (OPR 2019).

Other applicable considerations in the OPR guidance note the criteria for determining the significance to transportation impacts must promote the development of multimodal transportation networks. This Project would restore access to safe pedestrian use, including walking a biking, by repairing the road and road shoulder.

Because the proposed Project would not increase the length of roadway, add new roadways, or increase the number of travel lanes outside of historic conditions, there would be no increase in VMT. The impact would be less than significant.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (No Impact)

The Project would not change the geometry of Mattole Road. Therefore, no potentially hazardous roadway design features would be introduced by the Project. The Project would increase safety as it would repair the landslide-impacted road

Improvements would include repairing back to a two-lane paved road with a shoulder and would ultimately reduce potential impacts associated with hazards due to geometric design feature to a less than significant level.

Project design compliance with the Caltrans *Highway Design Manual, 7th Edition* (Caltrans 2020a) and *California Manual on Uniform Traffic Control Devices* (Caltrans 2020b) would reduce the potential impact of hazards associated with geometric design features to a less than significant level.

The Project Area does not include intersections, and the Project does not include design features that would introduce a hazard. No impact would result.

d) Result in inadequate emergency access? (Less than Significant Impact)

The Project Area is currently the only route in the rural community for emergency access and is limited to a single lane. The Project would enhance access within the community by repairing the landslide-impacted road back to a two-lane paved road. Emergency access to the Project Area already exists and would continue to exist under the proposed Project during both construction and operation. Temporary road closures up to an hour may occur during construction, but ingress and regress would be given to emergency access. Since the Project Area is already served by emergency and law enforcement personnel, the road would not slow or hinder emergency response, would not require additional emergency services, and would maintain emergency access; therefore, a less than significant impact would result during construction. Following construction, the surrounding area would continue to have emergency access. No operational impact on emergency access would result.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe				X

Please see Section 1.7.4 (Tribal Consultation) for a summary of tribal consultation.

a,b) Cause a substantial adverse change in the significance of a tribal cultural resource? (No Impact)

The County provided AB 52 notification letters to representatives of the Bear River Rancheria, Sinkyone Intertribal Wilderness Council, and the Wiyot Tribe on June 1, 2022. After 30 days, no responses have been received to date and tribal cultural resources were not identified. No impact would result.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation 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	

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? (Less than Significant Impact)

The proposed Project does not involve the use or construction of any facilities that would require new water, wastewater, electrical, natural gas, or telecommunications utilities. Therefore, the Project would not require or result in the construction of other water, wastewater treatment, natural gas, or telecommunications facilities or expansion of existing facilities. Overhead telephone and high voltage electrical lines run parallel to Mattole Road on both the upslope and downslope side of the road. The overhead clearance is sufficient to accommodate construction under the lines without needing temporary or permanent relocation. Project related stormwater features include new longitudinal and lateral sub-drains and replacing an existing culvert; rip rap energy dissipaters with the use of live willow plantings will be included. Capacity of modified culvert would not substantially change, require additional maintenance, or result in a new environmental impact. The amount of impervious surface area created by this project is not anticipated to significantly increase surface water discharge volumes. The potential impact to on- and off-site utilities and services resulting from the Project would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? (No Impact)

The proposed Project would not create an increased demand for domestic water service. The Project would require relatively small quantities of water during the construction phase (e.g., for dust control and concrete/asphalt applications). The Project's water demands would not be substantial and can be met by existing entitlements and resources. The Project would not induce population growth or result in land uses that would increase demand for water supplies. Therefore, the Project would not result in the need for the construction of new water facilities, or the expansion of existing facilities. No impact would result.

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? (No Impact)

The Project does not involve sewerage facilities or wastewater treatment and would not impact existing municipal sewerage infrastructure or result in a demand increase on existing wastewater treatment capacity. No impact would result.

d, e) 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? Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? (Less than Significant Impact)

The solid waste providers in the area are Recology Eel River (Recology) and the Humboldt Waste Management Authority (HWMA). The Project is not expected to generate a significant increase of services for solid waste disposal needs. The proposed Project would generate limited solid waste during construction and no waste during operation. Construction solid waste would include the one-time temporary generation of construction waste associated with the proposed development of the road. Excess soils, aggregate road base, RSP, and construction materials would be stored within designated staging areas. Excess materials may be re-used on site for backfill and finished grading. Excess materials would not be stockpiled on-site once the Project is complete. The contractor would haul additional excess materials off site for beneficial re-use, recycling, or legal disposal. Solid waste collected as a part of the Project would be disposed of via Recology or HWMA. Solid waste produced in the County is trucked to State licensed landfills located in Anderson, California and Medford, Oregon in compliance with local, State, and federal regulations pertaining to solid waste disposal. These facilities have sufficient capacity to serve the Project's solid waste disposal needs; therefore, a less than significant impact is anticipated

3.20 Wildfire

	Potentially Significant Impact	Less-than-Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
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 slop instability, or drainage changes?			X	

The Project is located within a State Responsibility Area (SRA) rated as either a moderate or high Fire Hazard Severity Zone (FHSZ) (CAL FIRE 2007). There are no very high fire hazard severity zones within the SRA. CAL FIRE serves the Project Area located within the SRA. The nearest land classified as a very high fire hazard severity zone is approximately 1 mile south of the Project Area (CAL FIRE 2022).

The closest fire station to the Project Area is the Honeydew Fire Station located approximately 2.5 miles southeast of the Project.

a) Substantially impair an adopted emergency response plan or emergency evacuation plan (Less than Significant Impact)

A review of the Humboldt County EOP (Humboldt County 2015) and the Tsunami Inundation Map for Emergency Planning – County of Humboldt (CGS 2021) indicates that the Project would not permanently impair emergency response activities nor established evacuation routes. The Project operation would not impair implementation or physically interfere with an established emergency response or evacuation plan; see Section 3.9 (Hazards and Hazardous Materials, Impact (f)) for discussion of the Project's effect on emergency response and evacuation plans. Once constructed, the Project would enhance transportation along Mattole Road, thus emergency response or evacuation would not be impeded. The Project would not permanently impede access to any existing roads or pedestrian ways within the Project Area. A less than significant impact would result.

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? (Less than Significant Impact)

The Project would be located in a rural area within an existing road. The topography within the Project Area is moderately slopped, with select portions of the Project Areas along the roadway and the Mattole River relatively flat. Grasses, shrubs, and other vegetation are present along the Project Area. The vegetated portions could be susceptible to wildfire during Project construction or operation, as a result of accidental ignition. During construction, all hazardous materials and construction equipment would be appropriately used and stored pursuant to applicable regulations. During operation, the Project would not house any pollutants within the Project Area that may be released if a wildfire occurred. Furthermore, the Project does not include any structures built for human occupancy. Due to the

temporary nature of construction, the minimal amount of hazardous materials anticipated to be stored during the construction phase, the fact that the Project is not located within an area of very high fire risk, and given that the Project does not include any structures to be used for human occupancy, the Project would not exacerbate wildfire risks and thereby expose users to pollutants. A less than significant impact would result.

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? (No Impact)

Development of the Project would not result in a need to expand infrastructure to the Project Area or in the immediate vicinity of the Project. New roads for fire defense, expanded water sources, or new power lines would not be required. No impact would result.

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? (Less than Significant Impact)

The Project is located within an existing roadway traversing moderately steep terrain. The Project Area currently does not have much vegetation, with approximately 38% slopes and a stability rating of High Instability (Humboldt County 2015). Per Section 3.10 (Hydrology and Water Quality), a small portion of the Project Area along Mattole River is included in the mapped FEMA 100-year flood zone; however, the road and the majority of the Project Area is excluded from the FEMA 100-year flood zone.

Following a wildfire, erosion within the Project Area could occur due to the loss of vegetation but would be limited due to no significant change from the minimally occurring vegetation. The purpose of the Project is to help stabilize the slope, reducing the potential for slope instability, future erosion, and risk of siltation. Therefore, any potential impact would be less than significant.

3.21 Mandatory Findings of Significance

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

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? (Less than Significant Impact with Mitigation)

As evaluated in this IS/MND, the Project would not substantially degrade the quality of the environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the number or restrict the range of an endangered, rare, or threatened species; or eliminate important examples of the major periods of California history or prehistory.

Mitigation measures are listed herein to reduce impacts related to air quality, energy, biological resources, cultural resources, geology and soils, hazards and hazardous materials, and hydrology and water. With implementation of the required mitigation measures, impacts would be less than significant.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? (Less than Significant Impact)

Cumulative impacts are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines Section 15355). Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time. As discussed in Section 3.11 (Land Use and Planning), the Project is consistent with the Humboldt County General Plan. The Project would repair a dilapidated section of Mattole Road, stabilizing the slope, increasing connectivity, and safety in the region.

Table 3.21-1 provides a list of past, present, and reasonably foreseeable future projects within and near the Project Area, including a brief description of the projects and their anticipated construction schedules (if known). Efforts to

identify cumulative projects included outreach to the Humboldt County Planning and Building Department, Humboldt Redwood Company, and Humboldt County Department of Public Works. Identified projects are summarized in Table 3.21-1.

Table 3.21-1 Projects considered for cumulative impacts.

Project	Agency	Summary
Mattole Road Storm Damage Report PM 5.0 *Currently under construction*	HCDPW	Solider pile tie back wall to support the slope (large retaining wall with horizontal anchors). The project is not located near the Mattole River and does not include surface drainage systems.
Mattole Road Storm Damage Report PM 6.5 *Constructed 2021*	HCDPW	Reconstruction of roadway and embankment, including a deep subdrainage system. Includes new culverts, culvert replacements, and tree removal. Does not include in-water work.
Pending cannabis application	County of Humboldt Planning and Building Dept.	Pending application at 39031 Mattole Road, most likely within BSA. Between Mattole River and Mattole Road.
Pending cannabis application	County of Humboldt Planning and Building Dept.	Pending application at 39811 Mattole Road, upstream of the BSA near Saunders Creek. Between Mattole River and Mattole Road.
Existing cannabis application	County of Humboldt Planning and Building Dept.	Existing operation at 40000 and 40300 Mattole Road. Located near or in the BSA near Cook Gulch. Located on the south side of Mattole Road.
Pending cannabis application	County of Humboldt Planning and Building Dept.	Pending application at 37773 Mattole Road. Located downstream of the BSA on the east side of Reynolds Road.
Pending cannabis application	County of Humboldt Planning and Building Dept.	Pending application at 40740 Mattole Road. Located upstream of the BSA on the south side of Mattole Road.
Existing cannabis application	County of Humboldt Planning and Building Dept.	Existing operation on APN 104-071-004-000 near Reynolds Road, downstream of the BSA.
Existing cannabis application	County of Humboldt Planning and Building Dept.	Existing operation on APN 107-321-002-000 near BSA at the intersection of Roscoe Road and Lindley Road.

The impacts associated with the proposed Project analyzed in this IS/MND would not add appreciably to any existing or foreseeable future significant cumulative impact, such as visual quality, cultural resources, biological, traffic impacts, or air quality degradation. Incremental impacts, if any, would be negligible and undetectable. Any applicable cumulative impacts to which this Project would contribute would be mitigated to a less-than-significant level. Incremental impacts, if any, would be very small, and the cumulative impact would be less than significant. Because the proposed Project would not result in significant impacts after mitigation, and because the proposed Project is a road repair rather than a development project that could add to existing and future population growth and development in the area, the proposed Project would not contribute to any significant cumulative impacts which may occur in the area in the future. Therefore, the impact would be less than significant.

c) Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly? (Less than Significant Impact)

The Project has been planned and designed to avoid significant environmental impacts. As discussed in the analysis throughout Section 3 of this IS/MND, the Project would not have environmental effects that would cause substantial adverse direct or indirect effects on human beings. The impact would be less than significant.

4. References

Bay Area Air Quality Management District (BAAQMD). 2017. CEQA Air Quality Guidelines.

California Air Resources Board (CARB). 2017. California's 2017 Climate Change Scoping Plan. Accessed June 2022. Available at https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf

California Department of Forestry and Fire Protection (CAL FIRE). 2007. California Department of Forestry and Fire Protection (CAL FIRE). 2007. Humboldt County Draft Fire Hazard Severity Zones in LRA. https://osfm.fire.ca.gov/media/6679/fhszl06_1_map12.pdf

California Department of Forestry and Fire Protection (CAL FIRE). 2022. Fire Hazard Severity Zone Viewer. Accessed: March 2022. https://egis.fire.ca.gov/FHSZ/.

California Department of Toxic Substances Control (DTSC). 2022. EnviorStar Hazardous Waste and Substances Site List (Cortese). Accessed: March 2022. https://www.envirostor.dtsc.ca.gov

California Department of Transportation (Caltrans). 2020a. Highway Design Manual, 7th Edition.

California Department of Transportation (Caltrans). 2020b. California Manual on Uniform Traffic Control Devices (CA MUTCD) 2014 Edition Revision 5.

California Department of Transportation (Caltrans). 2020c. *Transportation- and Construction-Induced Vibration Guidance Manual*. Available online: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf

California Environmental Protection Agency (Cal/EPA). 2022. List of Active CDO and CAO from Water Board. https://calepa.ca.gov/sitecleanup/corteselist/. Accessed: March 2022.

California Geological Survey (CGS). 2021. Tsunami Inundation Map for Emergency Planning – County of Humboldt.

California Geological Survey (CGS). 2022. Earthquake Zones of Required Investigation. Accessed: March 25, 2022. https://maps.conservation.ca.gov/cgs/EQZApp/app/

Crawford & Associates, Inc. (Crawford). 2021. Draft Geotechnical Memorandum – Mattole Road PM 5.25, Honeydew, Humboldt County, CA. Crawford & Associates, Sacramento, California, USA.

Department of Water Resources (DWR). 2004. Department of Water Resources Bulletin 118 Alluvial Groundwater Basins/Subbasins Humboldt County, California. https://groundwaterexchange.org/basin/mad-river-valley-lowland/

Department of Water Resources (DWR). 2019. Sustainable Groundwater Management Act 2019 Basin Prioritization.

ESA. 2021. Airport Land Use Compatibility Plan. Prepared for the Humboldt County Airport Land Use Commission (ALUC). https://humboldtgov.org/DocumentCenter/View/95080/2021-Airport-Land-Use-Compatibility-Plan-adopted-04132021-33-MB. Accessed: March 2022.

GHD Inc. (GHD). 2022a. Natural Environment Study. Prepared for the Humboldt County Department of Public Works. GHD, Eureka, California, USA.

GHD Inc. (GHD). 2022b. Biological Assessment. Prepared for the Humboldt County Department of Public Works. GHD, Eureka, California, USA.

GHD Inc. (GHD). 2022c. Aquatic Resources Delineation Report. Prepared for the Humboldt County Department of Public Works. GHD, Eureka, California, USA.

GHD Inc. (GHD). 2022d. Botanical Report. Prepared for the Humboldt County Department of Public Works. GHD, Eureka, California, USA.

Humboldt County. 2015. Humboldt County Sheriff's Office, Office of Emergency Services. Emergency Operations Plan. March. https://humboldtgov.org/DocumentCenter/View/51861/Humboldt-County-Emergency-Operations-Plan-2015. Accessed: March 2022.

Humboldt County. 2017. Humboldt County General Plan. October. Available online: https://humboldtgov.org/DocumentCenter/View/61984/Humboldt-County-General-Plan-complete-document-PDF

Humboldt County. 2020. Humboldt County Operational Area Hazard Mitigation Plan 2019. January. Accessed: March 2022. https://humboldtgov.org/DocumentCenter/View/82770/HumboldtCountyHMP_Vol1_Final_2020-01-28.

Humboldt County. 2022a. Humboldt County WebGIS. Layers Accessed: Prime Agricultural Soil. Accessed: May 24, 2022. https://webgis.co.humboldt.ca.us/HCEGIS2.0/

Humboldt County. 2022b. Humboldt County WebGIS. Layers Accessed: Williamson AG Preserves. Accessed: May 24, 2022. https://webgis.co.humboldt.ca.us/HCEGIS2.0/

Humboldt County. 2022c. Humboldt County WebGIS. Layers Accessed: Earthquake Faults. Accessed: May 24, 2022. https://webgis.co.humboldt.ca.us/HCEGIS2.0/

National Center for Education Statistics (NCES). 2022. School and District Navigator. Accessed: May 27, 2022. https://nces.ed.gov/ccd/schoolmap/

North Coast Unified Air Quality Management District (NCUAQMD). 2022. Air Quality Planning & CEQA. Accessed: June 2, 2022. Available at: http://www.ncuaqmd.org/index.php?page=aqplanning.ceqa

Office of Planning and Research (OPR). 2019. Technical Advisory on Evaluating Transportation Impacts in CEQA. December. Available online at: https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

Roscoe and Associates. 2009a. Historic Property Survey Report. Prepared for the Humboldt County Department of Public Works.

Roscoe and Associates (Roscoe). 2009b. An Archaeological Survey Report of a Storm Damage Repair Project. Prepared for the Humboldt County Department of Public Works. Roscoe and Associates, Bayside, California, USA.

Sacramento Metropolitan Air Quality Management District (SMAQMD). 2021. CEQA Guide. Available at: https://www.airquality.org/residents/ceqa-land-use-planning/ceqa-guidance-tools#:~:text=The%20Guidance%20to%20Address%20the,thresholds%20of%20significance%20emissions%20levels.

State Water Resources Control Board (SWRCB). 2022. GeoTracker. Accessed: March 2022. https://geotracker.waterboards.ca.gov/map/

United States Environmental Protection Agency (EPA). 2002. Mattole River Total Maximum Daily Loads for Sediment and Temperature.

5. Report Preparers

5.1 Lead Agency

Andrew Bundschuh, Environmental Permitting and Compliance Manager

5.2 GHD

Jeremy Svehla, Technical Director

Andrea Hilton, Environmental Planner

Misha Schwarz, Senior Environmental Planner

Christian Hernandez, Botanist

Chryss Meier, Air Quality Planner

Sam Moose, Environmental Scientist

Appendices

Appendix A

Figures

Appendix B

Mitigation, Monitoring, and Reporting Program

Appendix C

CalEEMod Modeling Information and Results

Appendix D

Natural Environment Study

Appendix E

Botanical Report

Appendix F

65% Designs