Myers Flat Mutual Water System

Distribution System Improvement Project

Initial Study & Proposed Mitigated Negative Declaration

June 2019

Initial Study & Proposed Mitigated Negative Declaration

for the

Myers Flat Mutual Water System

Distribution System Improvement Project

Prepared for:

Myers Flat Mutual Water System
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JUNE 2019

Project Ref#: 84/12081

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Acronyms and Abbreviations

AB	Assembly Bill
AG	Agriculture General
APN	Assessor's Parcel Number
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Conservation Flood Plain Recreation
CH	Highway Service Commercial
CH_4	Methane
CHP	California Highway Patrol
CMP	Congestion Management Plan
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CR	Commercial Recreation
CRPR	California Rare Plant Rank
dB	decibel
DTSC	Department of Toxic Substances Control

EIR	Environmental Impact Report
EPA	Environmental Protection Agency
ERP	Emergency Response Plan
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FP	Flood Plain
GHD	GHD Inc.
GHGs	Greenhouse Gases
GIS	Geographic Information System
gpm	gallons per minute
HDPE	high density polyethylene
IG	Industrial General
L_{dn}	Day/night noise level
L_{eq}	Equivalent continuous sound pressure level
LOS	Level of Service
MFMWS	Myers Flat Mutual Water System
N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCAB	North Coast Air Basin
NCUAQMD	North Coast Unified Air Quality Management District
NOAA	National Oceanic and Atmospheric Administration
NO_2	Nitrogen Dioxide
NPDES	National Pollutant Discharge Elimination System
NSR	New Source Review
NWIC	Northwest Information Center
OES	Office of Emergency Services
OSHA	Occupational Safety & Health Administration
P	Public Lands
PM	particulate matter
PRC	Public Resources Code
PSD	Prevention of Significant Deterioration
psi	pounds per square inch
PVC	polyvinyl chloride
ROW	Right-of-way
SMAQMD	Sacramento Metropolitan Air Quality Management District
SO_2	Sulfur Dioxide
SRA	State Responsibility Area
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corp of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1. Project Information

Project Title	Myers Flat Mutual Water System (MFMWS), Distribution System Improvement Project
Lead Agency Name & Address	State Water Resources Control Board (SWRCB) Mailing Address: P.O. Box 100 Sacramento, California 95812 Phone number: (916) 341-5057
Contact Person	Ms. Nancy Ritter SWRCB Project Lead Phone number: (916) 449-5651 Nancy.Ritter@Waterboards.ca.gov
Project Location	The project is located in Myers Flat, California, approximately 50 miles south of Eureka. Myers Flat is located south and adjacent to Highway 101, and is surrounded on the west, south, and east by the Eel River.
Project Assessor's Parcel Number (APN)	Within road right-of-way (ROW) and some limited utility replacement work to take place on APNs listed in Appendix A.
General Plan Land Use	Within road ROW, Residential Estates (RE), Industrial General (IG), Commercial Recreation (CR).
Zoning	Within road ROW; Flood Plain (FP), Agriculture General (AG-B-5[5]-F), Heavy Industrial (MH-F-Q), Highway Service Commercial (CH-D-F-Q) and Unclassified (U)
Project Description Summary	MFMWS is proposing a water system distribution project which would upgrade the existing deteriorating 2-inch and 4-inch steel or PVC pipe in the water system to 6-inch capacity PVC or HDPE pipe. Additionally, in one location, dead-ends in the transmission line would be connected to make a fully looped water system. New gate valves, fire hydrants and water service connections to water meters would also be installed along the replaced pipeline.

1.1 CEQA Requirements

This project is subject to the requirements of the California Environmental Quality Act (CEQA). The CEQA Lead Agency is the SWRCB. The purpose of this Initial Study is:

- To provide a basis for deciding whether to prepare an Environmental Impact Report, a Mitigated Negative Declaration or a Negative Declaration
- To disclose potential project environmental impacts
- To inform the CEQA Lead Agency, responsible agencies, trustee agencies, and the public regarding the project and potential environmental impacts

This Initial Study has been prepared to satisfy the requirements of the CEQA, (Public Resources Code (PRC), Div. 13, Sec 21000-21177), and the State of California (State) CEQA Guidelines (California Code of Regulations, Title 14, Sec 15000-15387).

1.2 Background

The project is located in Myers Flat, California, approximately 50 miles south of Eureka (reference Figure 1, Project Vicinity). The community of Myers Flat occupies a flat bench in a horseshoe bend of the Eel River. Myers Flat is located southwest and adjacent to Highway 101, and is surrounded on the west, south, and east by the Eel River. Myers Flat's water needs are serviced by the MFMWS. The MFMWS is regulated by the SWRCB, Division of Drinking Water. The primary water source for Myers Flat is groundwater in subterranean stream flow of the South Fork Eel River. Water is extracted from one water supply well (Well No. 2), located in the southeastern part of town off of Boy Scout Camp Road, with a ground elevation of approximately 180 feet. The District's secondary source is a groundwater well (Well No. 1) located about 500 feet north of Well No. 2. The number of service connections is 107 and the current population served by MFMWS is approximately 400. Storage for the system is a 350,000 gallon covered concrete water storage tank, located at approximately 300 feet elevation. From the well, the main line to the tank consists of 8-inch polyvinyl chloride (PVC) and 10-inch high density polyethylene (HDPE) piping. Other main lines that service the rest of MFMWS are primarily 4-inch steel. The Engineering Report of the pipeline replacement and associated work, which includes the Hydrogeological Assessment of the local water resources, is available upon request by contacting the lead agency utilizing the contact information listed on page 1-1.

In 2014 a project was completed that included the construction of a new groundwater well (Well No. 2), a new pipeline between the well and storage tank, and a new roof and improvements to the existing storage tank. The pipeline replacements that took place included sizing to meet the fire flow requirements of the Myers Flat Fire District, set at 1,000 gallons per minute (gpm) (reference Figure 2, Project Components).

MFMWS has several issues in need of addressing. These issues involve the size, age, protection, and layout of the existing pipe network.

Aside from the recent upgrades, the majority of the MFMWS system is an aging distribution system constructed from predominantly 2-inch and 4-inch steel and PVC pipe, much of it surplus pipe left over from World War II or that was installed prior to formation of the water component standardization of pipe design installation methods, leading to inadequate pipeline configurations. The existing distribution pipes range in age, some as old as the 1930's, and the storage tank was built in the 1960's. Since the system has been developed over time originally as a private system, many operational challenges are present, including the location of pipes, fire hydrants and water meters and service connections on private property, aging leaking pipes, and the absence of construction

standards when the pipes were initially installed. The aging pipes are prone to breaking, resulting in system water losses and higher demand being placed on the groundwater wells. New and replacement of transmission lines, gate valves, fire hydrants, water meters and water service connections are needed throughout the service area to improve the operation of the water system and reduce water losses.

The existing 4-inch steel pipe does not allow for fire flow to be met throughout many points in the distribution system (1,000 gpm at 20 psi as set by the Myers Flat Fire Department). The fire hydrants also need to be replaced as they do not meet current standards. The current water distribution system is composed of a single loop and several dead-end transmission lines. Transmission lines with dead-ends can be prone to water quality issues, and pose a problem should a breakage or other emergencies in the transmission line occur. The water system needs to connect the dead-end transmission lines where feasible to increase redundancy within the system and help protect against potential water quality issues.

The Myers Flat water system was built over time and was a completely private system until the 1980's. When the water system was purchased by the Mutual Water Company, there was not good records of all the pipes in the ground, especially related to inter property connections and connections that may also be served with water from another private well in town. Thus, the system is at risk from unknown cross connections, without back flow prevention devices. New transmission lines and valves to prevent back flows are needed throughout the service area to improve the operation of the water system and reduce leaks.

1.3 Project Location and Environmental Setting

The project is located within the unincorporated community of Myers Flat in Humboldt County, California. Primary access to the project site is via Avenue of the Giants (Highway 254), off exit 656 from Highway 101 in Myers Flat. The project site is within Sections 29 and 30, Township 2 South, Range 3 East, Humboldt Meridian within the U.S. Geological Survey (USGS) 7.5' Myers Flat and Weott topographic quadrangle maps at approximately 180 feet above sea level (reference Figure 1, Project Vicinity).

The project site consists of the following roadways: Avenue of the Giants, Boy Scout Camp Road, and Myers Avenue. Avenue of the Giants and Myers Avenue are paved while a portion of Boy Scout Camp Road is gravel. The project includes limited ground disturbance within portions of private properties (listed in Appendix A) ranging from less than 10 feet to up to 90 feet in one particular location for installation of water service connections. Currently, many MFMWS water meters are located within private property; this project will relocate MFMWS water meters from private property to the public ROW and replace water service connections within private property to allow for continued domestic service. Existing land uses primarily consist of single family residences, commercial uses along Avenue of the Giants and Myers Avenue, undeveloped land and lots, and row crops. Land uses beyond the immediate vicinity of the project site include: Highway 101 and forestland to the north, and the Eel River and forestland to the east, south and west (reference Figure 1, Project Vicinity).

1.4 Project Objective

The primary objective of the proposed project is to replace the aging 2-inch and 4-inch steel and PVC pipes which are prone to breaking and leaks with new 6-inch capacity PVC or HDPE pipe, new gate valves, fire hydrants, water meters, and water service connections which would result in continued service to water system customers and all fire hydrants meeting fire flow requirements (1,000 gpm). Additionally, in one location, a dead-end in the transmission line would be connected to make a fully looped water system, which would increase redundancy and improve water quality.

1.5 Project Description and Project Design Components

1.5.1 Project Description

The proposed project would replace the aging pipelines in the distribution system that were not addressed during the last water system improvement project in 2014. Additionally, a new water transmission line will connect existing dead-ends in the system at the north west corner of the distribution system on Boy Scout Camp Road, creating a looped network.

The existing 2-inch and 4-inch steel lines along Boy Scout Camp Road, Myers Avenue, Maple Lane, and Avenue of the Giants would be replaced with 6-inch PVC pipe. Many of the existing steel lines were installed following World War II and did not incorporate the level of technical design that modern projects embody. It is believed that the existing steel water lines lie at a depth of approximately three feet; the new 6-inch PVC piping would be installed at approximately the same depth, which would require trenches to be dug to a depth of four feet to a maximum of seven feet in order to accommodate air release valves. The existing 2-inch and 4-inch steel water lines would be plugged and abandoned. Additional gate valves, approximately eight (8), would be placed to allow for system isolation during emergency or maintenance situations, and approximately 13 fire hydrants would be installed to replace five existing hydrants that do not meet modern fire codes, and eight new hydrants would be installed to meet fire code spacing.

Upgrading the water transmission lines would result in all fire hydrants in the system meeting the specified fire flow (1,000 gpm). A preliminary hydraulic study was performed using WaterCAD, which showed that the existing system did not provide the required fire flow where fire hydrants were connected to existing pipes. Upgrading the system to new 4-inch PVC pipes was investigated; however, this resulted in many of the fire hydrants still not meeting the fire flow requirement. Modelling results showed that upgrading the existing water system to 6-inch capacity PVC or HDPE transmission lines would result in all fire hydrants meeting fire flow requirements.

Connecting the water transmission line dead-end at the northwest corner in the system would result in a better looped pipe network. In doing so, this upgrade would result in a more reliable water system that can better perform should either routine or emergency maintenance need to be performed. Additionally, looped water systems typically exhibit improved water quality through the reduction in water age.

The project will replace approximately 72 water meters, and 75 associated water service connections which connect MFMWS water users to the current water pipeline infrastructure (three of the water service connections received new water meters during the 2014 project). A component of the proposed project involves replacing and/or relocating a portion of the water meters (approximately 50) from private land to the public road Right-of-Way (ROW), and reconnecting water services to the new water meters. Water service replacement distances on private property mostly range from one foot to less than twenty feet of additional piping within private properties. Relocating this infrastructure

is expected to substantially improve future operational maintenance for the MFMWS, and ensure continued water service to system customers.

A variety of hardware components will be used in the 6-inch pipeline installation including 90 degree, 45 degree, 22.5 degree and 11.25 degree elbow pipe connector fittings, 6 inch by 6 inch by 6inch tee pipe connector fittings, 8 inch by 8 inch by 6 inch tee pipe connector fittings, 6 inch by 6 inch by 4 inch tee connector fittings, bollards, 10 inch by 6 inch reducers, 6 inch by 4 inch reducers, and 4 inch by 2 inch reducers, and polyethylene wrap.

1.5.2 Construction Schedule and Duration

The project is anticipated to be constructed from June 1st, through December 31st in 2019 and/or 2020. Construction equipment would include: concrete/industrial saws, backhoe/tractor, off-highway truck, excavator, skid steer loader, pavers, paving equipment and rollers.

1.5.3 Site Access and Staging

Site access would be from exit 656 on Highway 101 to Avenue of the Giants. The staging area would be approximately 200 feet by 100 feet within APN 081-121-013 (reference Figure 2, Project Components for the location and extent of available staging area). This location is at least 300 feet away from the South Fork Eel River and will contain appropriate BMPs including but not limited to high visibility fencing and fiber rolls. If this staging area becomes unavailable then MFMWS will find another location within the project area to use as a staging area.

1.5.4 Utility Needs during Construction and Operation

During construction electricity would be used for small power tools, water would be used for dust control, and gas for construction machinery. During operation, electricity would be used to run the graduated well pumps.

1.5.5 Operation and Maintenance

Maintenance includes monthly checks on the system, recording water meter data, repairing leaks if they occur, and general maintenance and upkeep of the facilities. The MFMWS would be responsible for maintenance.

1.6 Required Permits

The following permits are required for implementation of the proposed project.

- Humboldt County – Encroachment Permit
- Caltrans – Encroachment Permit

1.7 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 resource-specific mitigation measures are presented in the following analysis sections in Section Three. Project and resource-specific mitigation measures are also included in the Mitigation, Monitoring, and Reporting Program prepared for the project, Exhibit A (bound separately).

1.7.1 Environmental Protection Action 1 – Implement Air Quality Emission Control Actions during Construction

The project includes the following air quality control actions to reduce construction generated emissions:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, and graded areas) will be watered, as necessary, during windy periods when dust is generated.
- All haul trucks transporting soil, sand, or other loose material will maintain at least 1.0 feet of freeboard or cover the load.
- Idling times shall be minimized by shutting equipment off when idling for more than five minutes.
- All construction equipment will be maintained and properly tuned in accordance with manufacturer‘s specifications.

1.7.2 Environmental Protection Action 2 – Procedures for Encountering Human Remains

If human remains are discovered during project construction, the MFMWS or construction manager/contractor will halt work at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie adjacent to human remains (Public Resources Code, 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 (Public Resources Code, 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 Public Resources Code, Section 5097.98.

1.7.3 Environmental Protection Action 3 – Erosion Control

The following erosion control actions would be implemented by the construction contractor to prevent soil erosion and sedimentation during construction. Erosion and sediment control actions would be in effect and maintained by the contractor during construction.

- Surface water shall be directed away from slopes and new cut slopes.
- Stockpiled material will be covered or watered to eliminate excessive dust, as necessary.
- Fiber rolls or silt fencing or similar products will be utilized in appropriate locations to reduce sediment runoff from disturbed soils in receiving waters, as necessary.
- A concrete washout area will be designated to clean concrete trucks and tools, as necessary.

1.7.4 Environmental Protection Action 4 – Construction Dewatering Reduction

Excavation and below grade work will be scheduled during summer/fall to coincide with the period of the lowest groundwater levels at the site and the time frame with the least chance for rainfall. If groundwater is encountered, the contractor, in coordination with the MFMWS would evaluate options for dewatering management. If dewatering is necessary, one or more of the following management options would be used by the construction contractor to protect water quality:

- Reuse the water on-site for dust control, compaction, or irrigation, as appropriate.
- Discharge the water on-site in a grassy or porous area to allow infiltration/evaporation.

If discharge to a storm drain (i.e., surface waters) is the only feasible option, the project will comply with SWRCB requirements for construction dewatering. Actions may include characterizing the discharge and receiving waters and developing a Best Management Practices (BMP) Plan including filtering methods, monitoring and reporting requirements, and a description of the pump systems proposed to remove groundwater and maintain a dry work area.

2. Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that involves mitigation measures as indicated by the checklist on the following pages.

- ☐ Aesthetics
- ☐ Agricultural & Forestry Resources
- ☐ Air Quality
- ☒ Biological Resources
- ☒ Cultural Resources
- ☐ Geology/Soils
- ☐ Greenhouse Gas Emissions
- ☐ Hazards & Hazardous Materials
- ☒ Hydrology/Water Quality
- ☐ Land Use/Planning
- ☐ Mineral Resources
- ☒ Noise
- ☐ Population/Housing
- ☐ Public Services
- ☐ Recreation
- ☐ Transportation/Traffic
- ☒ Tribal Cultural Resources
- ☐ Utilities/Service Systems
- ☒ 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 project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

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

☐ I find that 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 project, nothing further is required.

Bridget Binning, Senior Environmental Scientist

6/21/19
Date

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3. Environmental Analysis

3.1 Aesthetics

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	Less-Than-Significant Impact	No Impact
Would the project:				
a) Have a substantial adverse effect on a scenic vista?			✓	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c) Substantially degrade the existing visual character or quality of the site and its surroundings?			✓	
d) Create a new source of substantial light or glare which would adversely affect day or night time views in the area?				✓

3.1.1 Discussion

Views within and adjacent to the project site include undeveloped forestland and Highway 101 to the north; undeveloped forestland and the Eel River in all other directions; however, the Eel River can only be seen when in close proximity to the river, not within central areas of Myers Flat. Scenic vistas from the project site include the surrounding forest land in all directions and views of the Eel River intermittently. Highway 101 is an eligible State scenic highway throughout Humboldt County; however, it is not officially designated at this time.

a) Adverse Effect on a Scenic Vista – Less than Significant Impact

The project site is not on any known scenic vista listing. Views of the surrounding forestland may be temporarily altered by equipment, construction materials, and workers during active construction in any given section of the pipeline. The changes to these views would be minor, temporary, and would generally be visible only to the public in the immediate vicinity of the active portion of pipeline construction. Upon completion of the project, the trenches would be covered, roads repaired, and there would not be any readily discernible alterations to the visual nature of the area or any obstructions to scenic vistas. The impact would be less than significant.

b) Damage Scenic Resources within a State Scenic Highway – No Impact

Based on California Scenic Highway Mapping System information, no designated state scenic highways are found adjacent to or within view of the project site (California Department of Transportation 2011). There are no officially designated State Scenic Highways within Humboldt County, although Highway 101 for its entire length in Humboldt County has been identified by the State Scenic Highway Mapping System as eligible for state listing (California Department of

Transportation 2011). The project site is visible from Highway 101; however, due to the project's minor, isolated and temporary nature of construction, and the fact that Highway 101 is not an officially designated state scenic highway, no impact has been identified.

c) Degrade Existing Visual Character – Less than Significant Impact

As discussed previously, construction activities associated with the Project would result in minor temporary aesthetic impacts that would not substantially alter the visual character of the Project area. Construction activities are anticipated to take approximately three months, between June and December, 2019 and/or 2020, and the ground surface, where disturbed, would be restored to pre-project conditions following construction. The visual character in and around the project area would not be substantially degraded and alterations would likely be difficult to identify following completion of the project. Therefore, the impact would be less than significant.

d) New Source of Light or Glare – No Impact

Construction of the project would occur during daylight hours, and operation of the project would not require lighting to be installed or any new lighting proposed. As a result, there would be no new source of substantial light or glare; therefore, there would be no impacts.

3.2 Agriculture and Forest Resources

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	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?				✓
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				✓
d) Result in the loss of forest land or conversion of forest land to non-forest use?				✓
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				✓

3.2.1 Discussion

Maps prepared pursuant to California's Farmland Mapping and Monitoring Program (FMMP) include Humboldt County as an "Area Not Mapped" and, therefore do not categorize the project area as having any type of Important Farmland (California Department of Conservation 2015a). The proposed project would take place within the road ROW; therefore, the land is not in agricultural production, under Williamson Act contract, or zoned for timber production. There are row crops planted in several areas within the Myers Flat community.

a) Farmland Conversion – No Impact

The project area does not include Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on any maps prepared pursuant to the FMMP. The Project area includes lands under agricultural use; however, project activities would take place within the existing public road ROW along Avenue of the Giants, Boy Scout Camp Road, and Myers Avenue. The project would not convert FMMP designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use; therefore, no impact would occur.

b, c, d) Conflict with Existing Zoning for Agricultural Use or Forest Land or Result in the Loss of Forest Land – No Impact

The proposed project would take place within the existing road ROW and to a lesser degree would also take place within the private property listed in Appendix A. Adjacent General Plan Land Use designations include: Commercial Recreation (CR), Industrial General (IG), Conservation Flood Plain Recreation (CFR), Agricultural Rural (AR 5-20), and Public Lands (P) (Humboldt County 2018a). Adjacent zoning designations include: Flood Plain (FP), Agriculture General (AG-B-5[5]-F), Heavy Industrial (MH-F-Q), Highway Service Commercial (CH-D-F-Q) and Unclassified (U) (Humboldt County 2018a). There are no parcels in the project area under Williamson Act contract (California Department of Conservation 2015b). There is land zoned for Timberland Production to the east of the Eel River; however, the project would not impact this area. All ground disturbances will be restored to pre-project conditions. The project would not conflict with agricultural or forest land zoning or Williamson Act contracts, and would not result in the loss of forest or agricultural land; therefore, no impact would occur.

e) Convert Forest Land or Farmland – No Impact

No forest land or timberland exists at the project site as the project site includes the existing road ROW and private properties listed in Appendix A. The project would not result in the loss or conversion of forest land, or involve other changes in the existing environment which would result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. No impacts would occur.

3.3 Air Quality

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	Less-Than-Significant Impact	No Impact
Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?			✓	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			✓	
c) 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			✓	
d) Expose sensitive receptors to substantial pollutant concentrations?			✓	
e) Create objectionable odors affecting a substantial number of people?			✓	

3.3.1 Discussion

The project site is located within the North Coast Air Basin (NCAB), which is under the jurisdiction of the North Coast Unified Air Quality Management District (NCUAQMD). The NCAB currently meets all federal air quality standards; however, the entire air basin is currently designated as non-attainment for the State 24-hour and annual average particulate matter smaller than 10 microns in size (PM_{10}) standards. The air basin is designated as in attainment for the State annual $PM_{2.5}$ standard. Both natural and anthropogenic sources of particulate matter (including vehicle emissions, wind generated dust, construction dust, wildfire and human caused wood smoke, and sea salts) in the NCAB have led to the PM_{10} non-attainment designation.

Myers Flat does not have any ambient air quality monitoring sites within the community. The nearest monitoring station is located in Eureka, approximately 50 miles north of Myers Flat. The Jacobs Station in Eureka, California is the newest monitoring station and collects data on the following pollutants: PM_{10}, $PM_{2.5}$, Ozone, Nitrogen Dioxide (NO_2), Carbon Monoxide (CO), and Sulfur Dioxide (SO_2).

Sensitive receptors in the project area include residences along the roadways of Myers Flat. There are no schools, hospitals or nursing homes in Myers Flat.

a) Conflict with or Obstruct Applicable Air Quality Plan – Less than Significant Impact

To address non-attainment for PM_{10}, the NCUAQMD adopted a Particulate Matter Attainment Plan in 1995. While this plan is not required for the NCUAQMD to come into attainment with the State PM_{10} standard, it presents available information about the nature and causes of PM_{10}, standard exceedances, and identifies cost-effective control actions to reduce PM_{10} emissions to levels necessary to meet California Ambient Air Quality Standards (CAAQS). However, according to the NCUAQMD's website, the NCUAQMD is planning to update the document at some point in the future.

The project would generate a minor amount of particulate emissions over the duration of construction in the form of dust, and vehicle and equipment emissions as a result of earthwork, trenching, clearing, grading, paving, and other construction activities. To reduce potential impacts to air quality, Environmental Protection Action 1 – Implement Air Quality Emission Control Actions during Construction, has been incorporated into the project. While the NCAB is in non-attainment for PM_{10}, the temporary nature and scope of construction activities combined with project implementation of standard dust and CO_2 emission reduction actions during construction would avoid significant impacts.

In the long term (operationally), the project would not add to the level of PM_{10} or other emissions such that it would cause a cumulatively considerable net increase of pollutant emissions in the area because the project would not emit pollutant emissions. With implementation of Environmental Protection Action 1 (Section 1.7) incorporated into the project, the project would not conflict with or obstruct implementation of the NCUAQMD particulate matter attainment plan because the air quality emission control actions would further reduce emissions. Therefore, a less than significant impact would occur.

b) c) Violate Air Quality Standard or Contribute Substantially to Existing or Projected Air Quality Violation or Result in a Cumulatively Considerable Net Increase of any Criteria Pollutant for which the Region is in Non-Attainment – Less than Significant Impact

Under the federal Clean Air Act of 1977, the US Environmental Protection Agency (EPA) is required to identify NAAQS to protect public health and welfare. The EPA has established NAAQS for six criteria air pollutants (Carbon Monoxide, Lead, Nitrogen Dioxide, Ozone, Particle Pollution and Sulfur Dioxide) and the NCAB does not violate these federal pollutant thresholds. Under the California Clean Air Act, the California Air Resources Board (CARB) has adopted more stringent standards for the criteria air pollutants. Though it has adopted a Particulate Matter Attainment Plan (described above), the NCUAQMD has not established specific thresholds of significance for criteria pollutants. As discussed above, the Humboldt County portion of the NCAB is currently designated as a State non-attainment area for PM_{10}, but does not violate any other federal, State, or local air quality standards (AQPSD 2013).

In the NCAB, most particulate matter is caused by vehicle emissions, wind generated dust, construction dust, wildfire human-generated wood smoke, and sea salts. Health effects from particulate matter include reduced lung function, aggravation of respiratory and cardiovascular diseases, increases in mortality rate, and reduced lung function and growth in children.

The NCUAQMD has not formally adopted significance thresholds, but rather utilizes the Best Available Control Technology (BACT) emission rates for stationary sources as defined and listed in the NCUAQMD Rule and Regulations, Rule 110 - New Source Review (NSR) And Prevention of Significant Deterioration (PSD), Section 5.1 – BACT. The project shall apply BACT to any new emissions unit or modification of an existing emissions unit, if the change would result in an increase

in the potential to emit from the new unit or modification of existing equipment. BACT shall be applied to each new unit or modification only for the pollutant(s) emitted in excess of the threshold(s) listed in Table 3.3-1.

Table 3.3-1 NCUAQMD Significance Thresholds

Pollutant	Significance Thresholds		Estimated Construction Emissions
	Daily (pounds per day)	Annual (tons per year)	Annual (tons per year)
Carbon monoxide	**500.0**	**100**	**0.4192**
Fluorides	**15.0**	**3.0**	**N/A**
Hydrogen sulfide	**50.0**	**10.0**	**N/A**
Lead	**3.2**	**0.6**	**N/A (all unleaded fuel)**
Nitrogen oxides	**50.0**	**40.0**	**0.5847**
Particulate matter (PM_{10})	**80.0**	**15.0**	**0.0445**
Particulate matter ($PM_{2.5}$)	**50.0**	**10.0**	**0.0296**
Reactive organic compounds	**50.0**	**40.0**	**0.0576**
Reduced sulfur compounds	**50.0**	**10.0**	**N/A**
Sulfur oxides	**80.0**	**40.0**	**N/A**
Sulfuric acid mist	**35.0**	**7.0**	**N/A**
Total reduced sulfur compounds	**50.0**	**10.0**	**N/A**

Source: NCUAQMD, Rule 110 New Source Review and Prevention of Significant Deterioration, 2015.

Project construction activities would cause the release of a limited amount of PM_{10} emissions related to fugitive dust, exhaust emissions from on-road haul trucks, worker commute vehicles, and off-road heavy duty construction equipment. However, because of the relatively small footprint combined with the limited duration of proposed construction at any given time, and with air pollution prevention BMPs incorporated into the project (see Section 1.7, Environmental Protection Actions 1 and 3), construction of the project would not cause a violation of air quality standards or contribute substantially to an existing or projected air quality violation.

The primary source of PM_{10} attributable to the project is exhaust from construction vehicles. This, in addition to emissions from worker commute vehicles would be well below the significance thresholds in Table 3.3-1. Emissions from the proposed project were estimated using CalEEMod software (the modelling results are available upon request from the lead agency, see contact information on Page 1-1). All construction emissions would be substantially less than the 15.0 tons per year threshold from PM_{10} as shown in Table 3.3-1. There would be no operational emissions. The impact is less than significant.

As described above, the NCAB is in non-attainment for the criteria air pollutant PM_{10}; however, as discussed above, with incorporation of Environmental Protection Actions 1 and 3, project construction would cause only minor and short-term production of PM_{10} and would not significantly increase the background levels. Due to the limited amount of equipment capable of producing PM emissions, project operation would result in a small amount of PM_{10} emissions; therefore, the project would result

in a less than significant cumulative impact to air quality from criteria air pollutant and precursor emissions.

d) Expose Sensitive Receptors to Substantial Pollutant Concentrations – Less than Significant Impact

Construction of the project would create temporary emissions of toxic air contaminants, primarily as a component of diesel emissions. Due to the variable nature of construction activity, the generation of toxic air contaminant emissions in most cases would be temporary, particularly considering the short amount of time such equipment is typically within an influential distance of sensitive receptors. Sensitive receptors in the project area include residences adjacent to project roadways where the general public would have access. The closest residences to the project site are the residences along Avenue of the Giants, Boy Scout Camp Road and Myers Avenue.

Project site work will take place between June and December 2019 and/or 2020. Construction would be between the hours of 7:00 AM and 6:00 PM, Monday through Friday, and 9:00 AM and 5:00 PM on Saturdays. No construction would be allowed on Sundays and holidays, except in an emergency. As discussed above, the project would result in short-term construction-related air emissions over the construction period. Implementation of Environmental Protection Actions 1 and 3, described in Section 1.7 would keep diesel PM exhaust emissions (and other emissions) at lower levels. As these emissions are temporary and short-term in nature, and well below the significance thresholds described above, health risks from project construction are not anticipated. Construction impacts are less than significant.

Project operation would not expose sensitive receptors to substantial pollutant concentrations as the proposed project does not have the capability of producing substantial pollutants (toxic air pollutants such as diesel PM, lead, Benzene, Hex Chrome, etc.). There would be no operational impacts above current baseline emissions.

e) Create Objectionable Odors – Less than Significant Impact

During construction the various diesel-powered vehicles and equipment could create localized odors. Additionally, some materials used in construction or substrates encountered in sub-surface construction may create objectionable localized odors. These odors would be temporary and not likely to be noticeable for extended periods of time beyond the construction zone due to atmospheric dissipation. The project's construction impact would be less than significant, and there would be no odors from operation.

3.4 Biological Resources

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	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 Wildlife or U.S. Fish and Wildlife Service?		✓		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?		✓		
c) c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			✓	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?			✓	
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				✓

3.4.1 Discussion

Existing Setting

The project alignment is within a developed rural/residential landscape, and construction impacts would be concentrated within the narrow, compacted, disturbed, or mowed roadside public ROW areas and private property. The road is lined, in most areas, with private fences shielding nearby residences and agricultural or fallow fields. Limited trenching work, mostly ranging from zero to twenty feet in length, will take place on private property, which mostly contain non-native grasses and ornamental landscaping in order to relocate water meters and water service connections into the

public ROW (reference Appendix A, Private Properties within the Project Footprint). The nearby South Fork Eel River is approximately 200 feet from project roadways at its closest point but typically further. There are few large trees and only scattered small patches of closed canopies along project roadways. The climate in the project area is Mediterranean with abundant precipitation limited primarily to winter months. The project site consists of level to undulating alluvial soils influenced by historical meandering or flooding events of the South Fork Eel River as well as residential and road construction. The project site, which is primarily within the road ROW, is not used as a resident or migratory wildlife corridor. The project site is not included in any State, regional, or local habitat conservation plan.

a, b) Impacts to Special-Status Species, Riparian or Sensitive Natural Community – Less than Significant with Mitigation

Based on guidelines established by the California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS), a project could be considered to have a significant adverse impact on biological resources if it would result in substantial disruption to, or destruction of, any special-status species, its habitat, or breeding grounds. Special-status species are those that are candidates, proposed, or listed as threatened or endangered by the USFWS or the CDFW. Plant species on the California Native Plant Society's (CNPS) California Rare Plant Ranking (CRPR) lists 1A, 1B and 2 are considered eligible for state listing as Endangered or Threatened pursuant to the California Fish and Game Code, and CDFW has oversight of these special-status plant species as a trustee agency of CEQA. A project would also be considered to have a significant impact if it would result in a substantial loss of sensitive plant or wildlife species; would cause a change in species composition, abundance, or diversity beyond that of normal variability; would result in the direct or indirect measurable degradation of sensitive habitats; or would result in loss of a significant plant community.

Database searches were conducted of the *California Natural Diversity Database* (CNDDB) [CDFW 2018], the CNPS *Inventory of Rare and Endangered Vascular Plants* (CNPS 2018), and USFWS IPaC *Information for Planning and Conservation* planning tool in order to compile a list of potential special-status species that are known to occur in the project vicinity and/or have the potential to occur at the site (reference Appendix B Sensitive Species Scoping List). The CNDDB list includes special-status aquatic species under the jurisdiction of National Oceanic and Atmospheric Administration (NOAA) Fisheries. Aerial photography was also consulted during the pre-field review to determine potential habitats for target sensitive-listed species occurrence. The CDFW and the CNPS recommended that project assessments include species with potential to occur on a minimum of nine USGS quadrangles with the project site located in the central quad(s). The project assessment species list included species with potential to occur on the USGS 7.5 minute quadrangles in which the project is located (Myers Flat), as well as adjacent eight quads (Weott, Redcrest, Bridgeville, Larabee Valley, Blocksburg, Fort Seward, Miranda, and Ettersburg).

The database searches were conducted prior to the site visit so as to establish potential species of concern for the site. The CNDDB/USFWS/CNPS database queries yielded forty-three (43) special-status plant and wildlife species previously documented in the greater nine quadrangle area. Appendix B, Sensitive Species Scoping List, summarizes the special-status plant and wildlife species potentially present in the general vicinity of the project and evaluates the potential for each of the species to occur within the project area. Due to the developed nature of the site, six plant species were determined to have a low to moderate likelihood of occurrence prior to field work and six plant species were determined to have no potential occurrence due to absence of potential habitat determined on a remote sensing level. Thirty-one (31) state and federally listed wildlife species that

are regulated by the USFWS or NMFS under the ESA and CDFW under the California Endangered Species Act (CESA), Fish and Game Code (FGC), or Special Animals List were identified as having the potential to occur in the vicinity of the Action Area. Of the thirty-one (31) wildlife species, the project area provides high potential habitat for one species, moderate potential habitat for thirteen species, low habitat for twelve species and no habitat potential for five species.

Several trips were taken to the project site to assess project site conditions. On July 24, 2015, the project study area was evaluated by a GHD biologist in an effort to identify if special-status plant or animal species or their habitats could occur within the project area. Evaluation of the project area was conducted by walking the 1.25 mile MFMWS roadside ROW area and surrounding area. A follow up visit with GHD, SWRCB, and CDFW representatives took place on December 8, 2015 for an additional site evaluation, which consisted of walking the 1.25 mile roadside ROW, assessing wildlife presence or absence, and assessing whether sensitive biological receptors were within the project site. One sensitive biological area was discovered and is discussed below in the amphibians subsection. Another site visit took place on September 21, 2018 which consisted of a GHD biologist and environmental planner walking the 1.25 mile MFMWS roadside ROW area, observing and assessing the private properties affected by the proposed project where visible from the roadside, observing and assessing the biologically sensitive area, and observing the habitat conditions along the South Fork Eel River beyond the south-western portion of the project area. On October 24, 2018 a GHD biologist took an additional trip to the project site to observe and assess the 225 foot Maple Lane ROW and staging area for potential wildlife and plant habitat values. Each site visit was approximately two field hours. It was determined that the disturbed roadside ROW areas, private property, and staging area where the project is proposed are unlikely to support any special-status plant or animal species.

The existing roads within the project area are dirt/gravel (~80 percent) or paved (~20 percent) with typically very small (< two feet) ROW areas capable of supporting plant growth on either side. Of the vegetated areas along the project roadways, approximately 60 percent was un-vegetated and approximately 40 percent consisted of mowed grass, heavily compacted soils, and/or invasive non-native species.

Tree cover along the ROW was of low density, reflecting the urbanized environment, and consisted of Douglas fir, redwood, or various ornamental species. Continuous tree cover was present in less than 20 percent of the project area and close evaluation of large trees adjacent to the project site did not indicate immediate use by raptors or the largely old-growth dependent Northern Spotted Owl or Marbled Murrelet.

The following lists, organized by taxon, are representative of the species that may potentially use the project site. Below each list is a description of any potential direct or indirect impacts on special-status plants or animal species within each taxon. The information is sourced from CNDDB, USFWS IPaC, and CNPS, which is also organized in Appendix B.

Plants

The following plant species have potential to occur within the search area:

- Humboldt County Milk-vetch (*Astragalus agnicidus*) – Endangered (CESA)
- Pacific Gilia (*Gilia capitata ssp*. *Pacifica*) – 1B.2
- Water Howellia (*Howellia aquatilis*) – 2B.2
- Small Groundcone (*Kopsiopsis hookeri*) – 2B.3

- Howell's Montia (*Montia howellii*) – 2B.2
- Seacoast Ragwort (*Packera bolanderi var*. *bolanderi*) – 2B.2
- Siskiyou Checkerbloom (*Sidalcea malviflora ssp*. *patula*) – 1B.2
- Beaked Tracyina (*Tracyina rostrata*) – 1B.2
- Northern Clustered Sedge (*Carex arcta*) – 2B.2
- Giant Fawn Lily (*Erythronium oregonum*) – 2B.2
- Coast Fawn Lily (*Erythronium revolutum*) – 2B.2
- White-flowered Rein Orchid (*Piperia candida*) – 1B.2

Special-status plants or potential habitat for listed-plant species were not identified during site visits and would therefore not be degraded by the proposed project.

Mammals

The following mammal species have potential to occur within the search area:

- Humboldt Marten (*Martes caurina humboldtensis*) – Endangered, CESA
- Fisher, west coast DPS (Pekania pennanti) – Candidate, CESA
- Sonoma Tree Vole (*Arborimus pomo*) – CDFW Species of Special Concern (SCC)
- Townsend's Big-eared Bat (*Corynorhinus townsendii*) – CDFW SSC
- Western Red Bat (*Lasiurus blossevillii*) – CDFW SSC
- North American Porcupine (*Erethizon dorsatum*) – CDFW Special Animals List
- Long-legged Myotis (*Myotis volans*) – CDFW Special Animals List
- Yuma Myotis (*Myotis yumanensis*) – CDFW Special Animals List

There is low quality habitat within the project area due to the developed infrastructure and high density of humans. However, there is highly suitable habitat surrounding the project site, located in Humboldt Redwood State Park. Due to the low habitat potential within the project site and the high quality habitat surrounding the project site, special-status mammals are not expected to use the project site. No impacts to special status mammals are expected to occur.

Reptiles

The following reptile species have potential to occur within the search area:

- Western Pond Turtle (*Emys marmorata*) –SCC

Suitable habitat for the Western Pond Turtle exists outside the project area along the banks of the South Fork Eel River. There is an area with contiguous riparian vegetation, as shown in Figure 2 (Biologically Sensitive Area) adjacent to the western central portion of Boy Scout Camp Road which abuts the project area that could serve as Western Pond Turtle habitat. In order to ensure that no impacts to this riparian habitat occur, Mitigation Measure BIO-1 – Conservation Measures to Protect Amphibians, and Mitigation Measure BIO-3 – Conservation Measures to Protect Salmonids, Sturgeon and Lamprey shall be implemented.

Amphibians

The following amphibian species have potential to occur within the search area:

- Foothill Yellow-legged Frog (*Rana boylii*) – Candidate Threatened, CESA
- Northern Red-legged Frog (*Rana aurora*) – CDFW SCC
- Pacific Tailed Frog (*Ascaphus truei*) – CDFW SCC
- Southern Torrent Salamander (*Rhyacotriton variegatus*) – CDFW SSC
- Red-bellied Newt (*Taricha rivularis*) – CDFW SCC

No suitable habitats for special status amphibians immediately along roads, the staging area, or on private property were observed to be present. However, a particular location adjacent to the project area contains contiguous riparian vegetation which extends approximately 350 feet between Boy Scout Camp Road and the South Fork Eel River between APNs 081-021-001 and 081-051-003 located in the western central portion of Boy Scout Camp Road (see Figure 2). Although some amphibian species, such as Northern Red-legged Frogs, may move through the area as they disperse from riparian areas during the rainy season, the particular location of the project mentioned above would not impact riparian vegetation and would be protected through the use of fiber rolls or silt fencing, and exclusion fencing during construction in order to confine construction as far as possible to the eastern/opposite side of the road (see Mitigation Measure BIO-1). There are no wetlands being impacted by the project, and while Northern Red-legged Frogs are present in the nearby state park they are not likely to be common along maintained roadsides. Foothill Yellow-legged Frogs, which are very semi-aquatic, occur along the banks of the Eel and tributaries and seldom are found more than a few feet from permanent flowing water in dry season. The Eel River is more than 200 feet away and more than 20 feet below the level of the project, thus the species is not likely to enter the project area.

The site visit on September 21, 2018 identified approximately seven Foothill Yellow-legged Frogs utilizing slack water habitat on the banks of the South Fork Eel River to the southwest and outside of the project area. While the site visits did not identify any special status species amphibians within the project site, that does not confirm absence of Northern Red-legged and Foothill yellow-legged Frogs; therefore, Mitigation Measure BIO-1 is included to reduce any potential impacts to special-status amphibians to a less than significant level.

Mitigation Measure BIO-1: Conservation Measures to Protect Amphibians

1. If work is required that would impact known or potential breeding habitat for the Northern Red-legged Frog or Foothill Yellow-legged Frog (state species of special concern, and CESA and ESA candidate and under review species, respectively), or other amphibians listed above, then a qualified biologist would conduct preconstruction surveys during the breeding season (January – March) and relocate egg masses to suitable nearby habitat. The project work window spans from June 1 through Dec 31st in 2019 and 2020, and therefore no impact to Northern Red-legged Frogs or Foothill Yellow-legged Frogs during their breeding season is expected to occur.
2. If any adult or sub-adult Northern Red-legged Frogs or Foothill Yellow-legged Frogs are encountered during construction, they would, subject to CDFW approval, be relocated to separate and suitable habitat by a qualified biologist.
3. Prior to construction, a qualified biologist would conduct training sessions to familiarize all construction personnel and supervisors with the following: identification of Northern Red-legged Frogs and Foothill Yellow-legged Frogs, their habitat, general provisions and protections afforded to these species, measures implemented to protect the species, and

a review of the project boundaries. This training would also be provided to construction supervisors and staff within 30 days of the arrival of any new worker during the course of implementation of the project.

4. In order to avoid potential adverse impacts to Foothill Yellow-Legged Frogs, or the other amphibians listed above, and riparian and aquatic habitat, project activities will be confined to the opposite/east side of the road as much as feasibly possible 150 feet north and south of the riparian corridor in the western central portion of Boy Scout Camp Road (reference Figure 2, Project Components). Standard BMPs and erosion control measures, including fiber rolls, would be implemented during construction to minimize possible discharge of sediment into aquatic habitats including but not limited to the biologically sensitive area identified between APN 081-021-001 and 081-051-003 along Boy Scout Camp Road (see Figure 2).

Implementation of Mitigation Measure BIO-1 would reduce any potential impacts to special status amphibians, including Foothill Yellow-legged Frogs and Northern Red-legged Frogs, to a less than significant level.

Migratory Birds

The following migratory bird species have potential to occur within the search area:

- Marbled Murrelet (*Brachyramphus marmoratus*) – Threatened, ESA; Endangered, CESA
- Northern Spotted Owl (*Strix occidentalis caurina*) – Threatened, ESA; Threatened, ESA
- Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*) – Threatened, ESA; Endangered, CESA
- Little Willow Flycatcher (*Empidonax traillii brewsteri*) – Endangered, CESA
- Western Snowy Plover (*Charadrius nivosus nivosus*) – Threatened, ESA; CDFW SCC
- Bank Swallow (*Riparia riparia*) – Threatened, CESA

The avian breeding season for Northern California is March 15 through August 15. Given the nearby riparian and old growth habitats, areas adjacent to the project site have potential to experience fly over and possible nearby nesting of birds at various times of year. The project avoids direct impact to potential habitat for migratory birds and does not propose riparian or any substantial native shrub vegetation removal, although limited vegetation trimming and cutting may take place within the public ROW. Removal of entire trees is not proposed in the project. Given the developed environment of the project site as well as the abundance of more suitable habitats outside of the project site, construction disturbance associated with the MFMWS water line installation is not likely to harm or substantially deter migratory or seasonally nesting birds. The noise associated with construction will be temporary and in conjunction with the ambient noise from US Highway 101 is not expected to impact any possible nearby nesting birds, such as Marbled Murrelet or Northern Spotted Owl.

As mentioned above, the riparian area adjacent to the project area which extends approximately 350 feet between Boy Scout Camp Road and the South Fork Eel River between APNs 081-021-001 and 081-051-003 may contain suitable habitat for the Little Willow Flycatcher, and impacts will be avoided through work confinement and applicable surveys to minimize impacts to Willow flycatcher as mentioned in Mitigation Measure BIO-2. However, for additional protections to all migratory birds, Mitigation Measure BIO-2 is included to reduce any potential impacts to a less than significant level.

Suitable habitat is not present within the Project site for Western Yellow-billed Cuckoo, Western Snowy Plover, or Bank Swallow, as these species are not expected to utilize the area.

Raptors

The following raptor species have potential to occur within the search area:

- Golden Eagle (*Aquila chrysaetos*) – Fully Protected, CDFW
- American Peregrine Falcon (*Falco peregrinus anatum*) – Fully Protected, CDFW
- Osprey (*Pandion haliaetus*) – CDFW Special Animals List
- Cooper's Hawk (*Accipiter cooperii*) – CDFW Special Animals List
- Sharp-shinned Hawk (*Accipiter striatus*) – CDFW Special Animals List

Several species of raptors (Osprey, Bald Eagle, Red-shouldered Hawk, Red-tailed Hawk, etc.) have potential to fly over the site and possibly roost or nest in nearby old growth forest, although, specific observations were not documented according to the site visit (by GHD) on July 24, 2015, December 8, 2015, September 21, 2018 or October 24, 2018. Raptor nests were not noted on the project site, and large trees to support nests were largely absent from the immediate roadsides but are much more abundant in nearby (e.g., 500 feet or more) old-growth and second growth areas across the South Fork Eel River and along Avenue of the Giants. Given the developed environment and multiple on-going construction projects, construction disturbance associated with the MFMWS water line installation would not be abnormal for the area and is unlikely to harm raptor species. However, Mitigation Measure BIO-2 is included to reduce any potential impacts to raptors to a less than significant level.

Mitigation Measure BIO-2: Conservation Measures to Protect Nesting and Migratory Bird and Raptor Species

1. Clearing of shrubs or other vegetation, if necessary for construction, shall be conducted if possible during the fall and/or winter months from August 16 to March 14th, outside of the avian breeding season for Northern California (March 15-August 15). If vegetation removal or ground disturbance cannot be confined to work during the non-breeding season, then MFMWS shall have a qualified biologist 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 the presence of raptors and special-status bird species. The biologist shall conduct a minimum of 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 biologist shall conduct a supplemental avian pre-construction survey before project work is reinitiated.
2. If active nests are detected within the construction footprint or within 500 feet of construction activities, the biologist shall flag a buffer around each nest. Construction activities shall avoid nest sites until the biologist 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 footprint, buffers will be implemented as needed. In general, the buffer size for common species would be determined on a case-by-case basis in consultation with the CDFW (California Department of Fish and Wildlife). The buffer size for sensitive species would be 300 feet and the buffer size for raptors would be 500 feet, if deemed appropriate in coordination with the CDFW.

3. 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. The survey results will be reported to the CDFW prior to the commencement of construction activities.

4. Garbage will be placed in secure containers or removed from the site at the end of each work day to avoid attracting ravens, jays, or other potential nest predators of Marbled Murrelets.

5. If construction has to occur during the avian breeding season within 300 feet of the biologically sensitive area located on the western central portion of Boy Scout Camp Road between APNs: 081-021-001 and 081-051-003, protocol level surveys for Little Willow Flycatcher will be implemented. If active nests are detected within the construction footprint or within 300 feet of construction activities, the biologist shall have locations flagged that are supporting breeding, and will not begin ground disturbing work or vegetation removal inside the buffers until after the nests have fledged. Construction activities shall avoid nest sites until the biologist determines that the young have fledged or nesting activity has ceased.

Implementation of Mitigation Measure BIO-2 would reduce any potential impacts to the nesting and migratory bird species, including Willow flycatcher, Marbled Murrelet, and raptors to a less than significant level.

Fish

The following fish species have potential to occur within the search area:

- Coho Salmon, southern Oregon/northern California ESU (*Oncorhynchus kisutch)* – Threatened, ESA and CESA
- Chinook Salmon – California coastal ESU (*Oncorhynchus tshawytscha*) – Threatened, ESA
- Steelhead, northern California DPS (*Oncorhynchus mykiss*) – Threatened, ESA
- *Green Sturgeon,* southern DPS (*Acipenser medirostris)* – Threatened, ESA
- Pacific Lamprey (*Entosphenus tridentatus*) – SSC, CDFW

Salmonids including Chinook Salmon, Coho Salmon and Steelhead are known to occur in the South Fork of the Eel River. The horseshoe bend in the river at Myers Flat typically ranges from about 200 to 600 feet from the project site. The special-status fish species listed above are not expected to be impacted by proposed water line, water valve, fire hydrant, water meter, and water service replacements and installation given the distance from the project site to aquatic habitat. However, potential impacts could occur; therefore, Mitigation Measure BIO-3 is included to reduce any potential impacts to salmonids, sturgeon, or lamprey to a less than significant level. Additional protections to water quality are listed in Environmental Protection Action 3 – Erosion Control measures, and Mitigation Measure HYD-1 – BMPs to be Implemented During Construction.

Mitigation Measure BIO-3: Conservation Measures to Protect Salmonids, Sturgeon and Lamprey

1. To avoid sediment delivery to a river where salmonids, sturgeon or lamprey could be present, work within 300 feet of the river would terminate by October 15 (or at onset of the rainy season) unless extended in writing by NMFS.
2. Work within 300 feet of the river would cease within 24 hours of significant forecast rainfall (<0.5 inches)
3. Surface water shall be directed away from slopes and new cut slopes.
4. Stockpiled material will be covered or watered to eliminate excessive dust, as necessary.
5. Fiber rolls or similar products will be utilized in appropriate locations to reduce sediment runoff from disturbed soils in receiving waters, as necessary.
6. A concrete washout area within the staging area will be designated to clean concrete trucks and tools, as necessary.

Implementation of Mitigation Measure BIO-3 would reduce any potential impacts to special status anadromous fish and lamprey to a less than significant level.

c) Impact to Wetlands – Less than Significant Impact

The project would not have a direct effect on federally protected wetlands or waters of the United States as defined by the U.S. Army Corp of Engineers (USACE) and per Section 404 of the Clean Water Act (including, but not limited to, swamps, marshes, bogs, vernal pool habitat, etc.), through direct removal, filling, hydrological interruption, or other means. The project will not impact waters of the state. Reconnaissance level field work was conducted on July 24, 2015 by a GHD biologist and another site visit with project Biologists and CDFW staff occurred on December 8, 2015, followed by another site visit by a GHD biologist and environmental planner on September 21, 2018 and an additional site visit by a GHD biologist on October 24, 2018 to assess the staging area. The field work did not document any wetlands within the project site or construction footprint of the project. However, wetlands were identified within the greater project vicinity. There is a wetland/riparian area containing large alders, willows, and hydrophytic vegetation directly adjacent to the project site. This area contains contiguous riparian vegetation all the way to the South Fork Eel River and nearly up to the edge of Boy Scout Camp Road between APNs 081-021-001 and 081-051-003, see Figure 2. The project would avoid these wetlands all together by implementing Mitigation Measure BIO-1, which includes site specific language to confine project activity to the opposite/east side of the road as much as is feasibly possible as well as Environmental Protection Action 3 – Erosion Control measures, and Mitigation Measure HYD-1 – BMPs to be Implemented During Construction to prevent any deposition of dirt or potential fill near the wetland. Therefore, the impact would be less than significant.

d) Interfere with Movement of Fish or Wildlife Species – Less than Significant Impact

Due to the nature of the project, there is potential for adverse effects to fish species and their habitats from construction activities occurring adjacent to the river (e.g. possibility for sediment discharge). However, the project is located approximately 200 feet at its closest point from the banks of the South Fork Eel River and Mitigation Measure BIO-3 will be implemented to ensure that the project avoids and/or minimizes any adverse effects. Implementation of the proposed project is not expected to

interfere with the movement of any native fish species. With incorporation of Mitigation Measure BIO-3, the impact would be less than significant.

Numerous species of mammals, birds, and reptiles inhabit the project area, and the proposed project would not interfere with the movement of these species. There would be no permanent above ground barriers to movement associated with the project compared to existing site conditions, and construction disturbance would be limited to a relatively small area for a short period of time. A less than significant impact would occur.

e) Conflict with Local Policies or Ordinances – No Impact

The Humboldt County General Plan includes several policies and standards, BR-P1, BR-P2, BR-S9, respectively, that apply to biological resources, including among others: protection of habitats for critical species; protection of fish and wildlife habitats in streamside management areas; establishment of buffer zones, and the protection of water resources. These policies and standards apply on all project lands subject to Humboldt County jurisdiction and the project is in compliance with these policies. No impact would occur.

f) Conflict with Conservation Plan – No Impact

There are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or other approved conservation plans with which the proposed project would conflict. No impact would occur.

3.5 Cultural Resources

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	Less-Than-Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?		✓		
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		✓		
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		
d) Disturb any human remains, including those interred outside of formal cemeteries?			✓	

3.5.1 Discussion

A Cultural Resources Investigation was prepared for the project by Roscoe and Associates (Roscoe and Associates 2015, addendum added in 2018). Due to the sensitive nature of cultural resources this report is bound separately and available for review from the Lead Agency (SWRCB).

Archaeological research in the region has hypothesized a continuous prehistoric cultural chronology for the last 7,800 years before present (B.P.). Oldest is the Borax Lake Pattern (8,000 to 3,000 B.P.) attributed to the earliest known prehistoric occupation for this portion of northwest California. These remains are thought to represent the activities of small, highly mobile family groups who ranged over wide areas (Fitzgerald and Hildebrandt 2001). The Middle Period (5,000 to 2,500 B.P.) is represented by the Mendocino Pattern, an adaptive orientation toward the use of low elevations, located along salmon bearing streams near acorn crops and which could be occupied by larger concentrations of people during the winter months (Hildebrandt and Hayes 1983, 1984) and Bickel (1979). Late period archaeological assemblages in Mendocino County are dominated by the Clear Lake Aspect of the Augustine Pattern which begins to appear after A.D. 500 during the Emergent Period. (Roscoe and Associates 2015)

The project area is within the boundaries of so-called Northern Sinkyone dialect of the larger Eel River dialect group of the California Athabascan language family. There are four large dialect groups within this family, all of them located in Humboldt, Mendocino, and Trinity counties. The Eel River dialect group is centered on a large section of the Eel River drainage. Within this group were seven distinct dialects. The Northern Sinkyone dialect was spoken along the lower South Fork Eel River and nearby sections of the main Eel (Golla 2011:76-81). (Roscoe and Associates 2015)

a, b) Historical or Archaeological Resources – Less than Significant with Mitigation

Review of the cultural resources investigation indicates that there have been four cultural resource studies within one half mile of the proposed project area, and that one recorded archaeological site exists in the project vicinity (Sampsono 1983; Strudwick 1997; Grantham 2003; Raskin & Roscoe 2009). The archaeological site is ¼ mile south of the project site. At the Northwest Information Center

(NWIC) a search of the Humboldt County National Register of Historic Places –Listed Properties and Determined Eligible Properties, California Register of Historical Resources, California Points of Historical Interest, California Inventory of Historical Resources, and the listing of the California Historical Landmarks was made. No resources were identified.

A pedestrian field survey was conducted on August 20 and September 2, 2015 by Roscoe and Associates staff and the addendum survey completed on September 26, October 18 and October 23, 2018. Survey methods were designed to identify archaeological resources. The survey included walking systematic parallel transects, approximately 10 meters apart, while visually scanning the ground surface. During this survey, the ground surface was inspected for prehistoric and historic archaeological site indicators. Since the majority of the project area consisted of paved or gravel roads, survey efforts were concentrated on mineral soils which were exposed in numerous rodent tailings, drainage gullies, road margins, and areas that had been disturbed during grading activities associated with road maintenance. Ground clearing was limited to shovel scrapes to remove grass and surface cover. Generally, attention was given to rodent burrows and where land surfaces appeared to be disturbed (rises, depressions, etc.). No artifacts, features, sites or other cultural resources were identified in the project area during this investigation.

Roscoe and Associates, on August 31, 2015, sent written correspondence regarding the cultural resources investigation to the NAHC requesting a search of the Sacred Lands Inventory File. Roscoe and Associates also requested the current list of local Native American groups and individuals who may have interests and/or concerns about cultural resources in the project vicinity. The NAHC responded by fax on September 4, 2015. Letters were sent on September 1, 2015 to the Round Valley Reservation, Bear River Band of Rohnerville Rancheria, the Inter Tribal Sinkyone Wilderness Council, the Eel River Nation of Sovereign Wailaki, Wiyot Tribe and Mr. Downey (Maidu representative). Consultation letters included a brief project description and location map. An email response was received from Tribal Historic Preservation Officer, Tom Torma on September 10, 2015, in which he stated that the project was occurring outside of Wiyot ancestral territory. To date, no other responses have been received from the listed recipients.

In compiling the 2018 addendum, Roscoe and Associates conducted a review of regional archaeological and ethno-geographic literature and historical maps, a project area record search at the California Historical Resources Information System's Northwest Information Center in Rohnert Park, California; correspondence with local Native American tribal representatives; and a pedestrian field survey. The project area is within the traditional tribal territory of the Northern Sinkyone, whose descendants are now members of the Bear River Band of the Rhonerville Rancheria. Mr. Roscoe corresponded with Erika Cooper, the Tribal Historic Preservation Officer (THPO) for the Bear River Band of Rohnerville Rancheria at her office on October 18, 2018 and by phone on October 25, 2018. Ms. Cooper had been out to the project area during the initial 2015 cultural resource investigation. After reviewing the proposed additions to the project area, Ms. Cooper had no concerns.

The project would include the replacement of existing 2-inch and 4-inch pipelines along Boy Scout Camp Road, Myers Avenue, and Avenue of the Giants with 6-inch capacity PVC or HDPE pipe (reference Figure 1-1). Therefore, the potential exists that undiscovered cultural artifacts on or below the surface could be disturbed by project activities. If previously unidentified archaeological or historical resources are discovered during construction of the project, impacts to such resources could be significant if not treated properly. The following mitigation measure is included to reduce potential impacts to cultural resources to a less than significant level in the event of the discovery of any unknown cultural resources.

Mitigation Measure CR-1: Identify and Avoid or Minimize Impacts to Unknown Historical and/or Archaeological Resources

MFMWS shall ensure that if concentrations of prehistoric or historic-period materials are encountered as a result of ground-disturbing activity attributable to the project, all work in the immediate vicinity shall halt until a qualified archaeologist can evaluate the finds and make recommendations. The recommendations of the archaeologist shall be implemented. Prehistoric materials could include obsidian and chert debitage or formal tools, grinding implements, (e.g., pestles, handstones, bowl mortars, slabs), locally darkened midden, deposits of shell, faunal remains, and human burials. Historic materials could include ceramics/pottery, glass, metal, can and bottle dumps, cut bone, barbed wire fences, building pads, structures, and trails/roads.

If such materials are encountered during construction, MFMWS shall retain a qualified archaeologist who shall be present during subsequent surface and subsurface activities in the vicinity of the sensitive materials as determined necessary by the archaeologist. With respect to these areas of sensitive materials:

- Ground disturbance shall be monitored by a qualified archaeologist with the authority to temporarily halt work and redirect equipment if cultural materials are discovered.
- If cultural materials are discovered, the archaeologist shall assess the discovery to determine if it constitutes either a unique archaeological resource or a historical resource for purposes of CEQA (CCR Title 14 §15064.5[a]).
- If the archaeologist determines that the materials do not constitute either a unique archaeological resource or a historical resource, their presence shall be noted but need not be considered further (CCR Title 14 §15064.5[c] [3]).
- If the archaeologist determines: (a) that the materials do constitute a unique archaeological resource or historical resource; and, (b) they are subject to substantial adverse change as defined in CCR Title 14 §15064.5[b], the archaeologist shall provide recommendations to MFMWS for appropriate treatment which, among other options, may include preservation in place or archaeological data recovery. Preservation in place is preferred, if it is feasible.

Implementation of Mitigation Measures CR-1 would reduce potentially significant impacts to less than significant levels by protecting, preserving, or recovering any significant cultural resources affected by project construction. No impact to historic resources is anticipated.

c) Paleontological or Geological Resources – 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 Section 5097.5, unauthorized disturbance or removal of a fossil locality or remains on public land is a misdemeanour. State law also requires reasonable mitigation of adverse environmental impacts that result from development of public land and affect paleontological resources (PRC Section 30244).

The project area contains newer alluvium and the likelihood of encountering paleontological resources is low, but in case they are encountered the potential impact is considered significant. The following mitigation measure is proposed.

Mitigation Measure CR-2: Evaluation and Treatment of Paleontological Resources

> If paleontological resources (e.g., vertebrate bones, teeth, or abundant and well preserved invertebrates or plants), are encountered during construction, the MFMWS shall ensure work in the immediate vicinity shall be diverted away from the find (or stopped altogether if appropriate) until a professional paleontologist assesses and salvages the find, as appropriate.

Implementation of Mitigation Measure CR-2 would reduce impacts to a less than significant level by requiring evaluation and salvage of any paleontological resources found during project construction. Additionally, the project site does not include any unique geologic features.

d) Human Remains – Less than Significant Impact

Although no known cemeteries or burial sites are located on the project site, given the long history of human activity in the area, encountering human remains during construction activities is possible. If human remains are discovered during construction of the project, impacts could be significant. As such, Environmental Protection Action 2, Procedures for Encountering Human Remains, has been incorporated into this project to reduce this potentially significant impact to less than significant by providing standard procedures in the event that human remains are encountered during project construction and adherence to PRC Section 5097.98 requiring Native American tribal notification.

3.6 Geology and Soils

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	Less-Than-Significant Impact	No Impact
Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				✓
ii) Strong seismic ground shaking?			✓	
iii) Seismic related ground failure, including liquefaction?			✓	
iv) Landslides?			✓	
b) Result in substantial soil erosion or the loss of topsoil?			✓	
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on, or off, site landslide, lateral spreading, subsidence, liquefaction or collapse?				✓
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				✓
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?				✓

3.6.1 Discussion

Humboldt County is located within a seismically active area of California. The County is located within the two highest seismic risk zones of the California Building Code. In addition to causing ground shaking, an earthquake can trigger other natural disasters such as fire, landslides, and flooding, resulting in loss of life and property damage. Seismic hazards in inland Humboldt County include earthquake ground shaking, surface fault rupture, liquefaction. Geologic hazards that are not specifically related to earthquakes include landslides and unstable soils.

a) i) Fault Rupture – No Impact

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. This act prohibits the location of structures designed for human occupancy across active faults and regulates construction within fault zones. The project site is not within an Alquist-Priolo Earthquake Fault Zone and the project does not include housing or structures for human occupancy subject to the Alquist-Priolo Act. Therefore, no impact would occur.

a) ii) Ground Shaking – Less than Significant Impact

All of Humboldt County is subject to potentially strong seismic ground shaking and multiple earthquake sources capable of generating moderate to strong earthquakes are in close proximity to the project site. Strong seismic shaking is a regional hazard that could cause major damage to the project area. The extent of ground-shaking during an earthquake is controlled by the earthquake magnitude and intensity, distance to the epicenter, and the geologic conditions in the area.

The proposed project would not expose people or structures to seismic ground shaking, and the project does not involve the construction of structures which would be occupied by people. The impact is less than significant.

a) iii) Liquefaction – 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.

The proposed project would not include residential development, occupied structures, or critical facilities that would be subject to liquefaction. Soils on the project site consist of the Pepperwood-Shivelyflat complex (0 to 2 percent slopes) (USDA 2015). According to Humboldt County's Hazard Mitigation Geographic Information System (GIS), the project site is not in an area susceptible to liquefaction (Humboldt County 2015). The impact is less than significant.

a) iv) Landslides – Less than Significant Impact

The project site is relatively flat ranging in elevation from 165 feet to 210 feet above sea level. Evidence of slope instability was not observed during field visits. According to Humboldt County's Hazard Mitigation GIS, the project site is not in a historic landslide area (Humboldt County 2015). The project would not expose people or structures to substantial risk of landslides for the reasons stated above. The impact is less than significant.

b) Soil Erosion or Loss of Topsoil – Less than Significant Impact

Construction activities, including excavation, trenching, grading, and operation of heavy equipment would disturb soil and, therefore, have the potential to cause erosion. Subject to regulatory approval, erosion control actions (Environmental Protection Action 3) would be undertaken and prepared, respectively, for the project prior to the start of construction and soil disturbance. The erosion control actions would include BMPs designed to reduce erosion of exposed soil and minimize the sediment entrained in runoff from the site during construction. BMPs may include: silt fences, straw bales and wattles, soil stabilization controls, site watering for controlling dust, and sediment detention basins. Ground disturbance in non-sensitive habitat areas would be mulched with straw or other appropriate material, as necessary under Environmental Protection Action 3 and Mitigation Measure HYD-1 for the project. With the implementation of Environmental Protection Action 3, potential impacts to soil erosion or the loss of topsoil would be less than significant.

c) Unstable Geologic Unit – No Impact

The proposed project is not located in an area prone to on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse; nor would construction or activities after construction increase the likelihood of creating on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. No impact has been identified.

d) Expansive Soils – No Impact

Expansive soils are generally high in certain clay types and are prone to large volume changes that are directly related to changes in water content. The predominant soil type at the project site is Pepperwood-Shivelyflat complex (0 to 2 percent slopes) (USDA 2015). This soil is an extensive agricultural soil if irrigated and is moderately well drained. These soils do not have expansive characteristics as defined by the California Building Code and the project would not create substantial risks to life or property. No impact has been identified.

e) Septic Tanks – No Impact

The project does not include the use of septic or other alternative wastewater disposal systems. Therefore, no impact would result with regard to the capability of soils to adequately support the use of septic tanks or alternative wastewater disposal systems. All of Myers Flat is on septic systems; however, the project would not result in any change to the use of or impact to those septic systems.

3.7 Greenhouse Gas Emissions

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	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?			✓	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				✓

3.7.1 Discussion

Climate change refers to change in the Earth's weather patterns including the rise in the Earth's temperature due to an increase in heat-trapping or greenhouse gases (GHGs) in the atmosphere. Unlike emissions of criteria and toxic air pollutants, which have local or regional impacts, emissions of GHGs that contribute to global warming or global climate change have a broader, global impact. Global warming is a process whereby GHGs accumulating in the atmosphere contribute to an increase in the temperature of the Earth's atmosphere. The principal GHGs contributing to global warming are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O) and fluorinated compounds. These gases allow visible and ultraviolet light from the sun to pass through the atmosphere, but they prevent heat from escaping back out into space. Among the potential implications of global warming are rising sea levels, and adverse impacts to water supply, water quality, agriculture, forestry, and habitats. In addition, global warming may increase electricity demand for cooling, decrease the availability of hydroelectric power, and affect regional air quality and public health. Like most criteria and toxic air contaminants, much of the GHG production comes from motor vehicles. GHG emissions can be reduced to some degree by improved coordination of land use and transportation planning at the community, county and subregional level, and other measures to reduce automobile use. Energy conservation measures can also contribute to reductions in GHG emissions (BAAQMD 2011).

The California Global Warming Solutions Act of 2006 (Assembly Bill 32 [AB 32]) definitively established the state's climate change policy and sets GHG reduction targets (Health & Safety Code §38500 et seq.). AB 32 requires the reduction of statewide GHG emissions to 1990 levels by 2020.

The NCUAQMD does not have rules, regulations, or thresholds of significance for non-stationary or construction-related GHG emissions. In 2011, the NCUAQMD adopted Rule 111 - Federal Permitting Requirements for Sources of Greenhouse Gases to establish a threshold above which NSR and federal Title V permitting applies and to establish federally enforceable limits on potential to emit greenhouse gases for stationary sources. These are considered requirements for stationary sources and should not be used as a threshold of significance for non-stationary source projects.

The Humboldt County General Plan contains goals and policies to reduce county-wide carbon emissions and strategically plan for future energy supply. Chapter 12 (Energy Element) within the Humboldt County General Plan contains numerous goals, policies and implementation measures related to reductions of greenhouse gas emissions, including support for increased energy efficiency and conservation, strategic energy planning, improving supply of energy from local renewable

resources, and the development or modification of regulations that eliminate obstacles to alternative energy use.

The General Plan recognizes the County's intent to reduce GHG emissions in the unincorporated area resulting from its discretionary land use decisions to 10 percent below 2003 levels by 2020 as part of a countywide Climate Action Plan. The County also intends to reduce GHG emissions in its own operations to 10 percent below 2003 levels by 2020.

a) Generation of Greenhouse Gas Emissions – Less than Significant Impact

Construction of the project would cause GHG emissions as a result of combustion of fossil fuels used in construction equipment and vehicles from workers commuting to and from the project site. The project would require the use of several pieces of heavy earthmoving equipment, delivery trucks, construction commute and utility vehicles, paving equipment, in addition to generators, and other small engine-powered tools. The NCUAQMD has not adopted a threshold for construction-related GHG emissions against which to evaluate significance and has not established construction-generated criteria air pollutant screening levels above which quantitative air quality emissions would be required.

Guidelines established by the Sacramento Metropolitan Air Quality Management District (SMAQMD) suggest that the NCUAQMD would expect quantitative analysis to be conducted for projects substantially greater in scope than the proposed project. For example, quantitative analysis would be expected for a school or commercial facility construction project over 30 acres, a city park over 60 acres, or a single family residential development with over 180 units (SMAQMD 2009). Project emissions during construction of the project would be during construction only, would not approach the level of emissions associated with these reference project types, and would not cause a considerable contribution to the cumulative GHG impact at the regional or state level. Given the project's scale, scope, and duration, it would not have a measurable or considerable contribution to the cumulative GHG impact at the local, regional or state level. The impact from construction would be less than significant.

The project would include only minor operational GHG emissions associated with the maintenance of any section of pipe, fire hydrants, water meters, and gate valves. The operation, repair and maintenance of any project facilities would not lead to a substantial increase in GHG emissions or a related impact. The impact from operations would be less than significant.

b) Conflict with an Applicable Plan, Policy or Regulation – No Impact

As stated above, Humboldt County has prepared draft goals and policies related to GHG emissions as part of the General Plan update process but has not yet adopted any formal GHG emission reduction policies in its General Plan or in a Climate Action Plan. These goals and policies are not generally directly relevant to the placement of a water pipeline, but offer some insight into GHG-related consideration in evaluation of a project. The County has adopted a resolution in commitment to reduce GHG emissions, as described above. Although the Project would produce a minor amount of construction-related emissions, the Project would not conflict with these plans and policies and there would be no impact.

3.8 Hazards and Hazardous Materials

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	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?			✓	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			✓	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✓
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?			✓	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?				✓
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				✓
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✓
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			✓	

3.8.1 Discussion

Hazardous Materials

Hazardous materials are substances, or a combination of substances that, due to quantity, concentration, physical, chemical, radiological, explosive, or infectious characteristics, pose a potential danger to humans or the environment. Generally, these materials are categorized as: explosive and blasting agents; flammable and non-flammable gases; combustible liquids and solids; oxidizers; poisons; disease-causing agents; radioactive materials; corrosive materials and other materials, including hazardous wastes.

The project site is not included on any of the following 'Cortese List" (Government Code Section 65962.5) data resources sites: list of Hazardous Waste and Substances sites from Department of Toxic Substances Control (DTSC) EnviroStor database; list of solid waste disposal sites identified by Water Board with waste constituents above hazardous waste levels outside the waste management unit; list of "active" CDO and CAO from Water Board; and List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

The North Eastern portion of the project site and proposed staging area (APN 081-121-013) is a former gas station and Leaking Underground Storage Tank (LUST) Site listed through the State Water Resources Control Board (SWRCB) Geo Tracker database. The North Coast Regional Water Quality Control Board Case Number associated with the site is 1THU728. According to the Case Closure Summary, the three underground storage tanks were removed from the site on February 23, 1999 (Humboldt County LOP 2004). According to the regulatory activities listed through the Water Board Geo Tracker database, the leak was reported on January 13, 2000 and the case was closed on April 7, 2004 (SWRCB 2018).

The project will include limited ground disturbance within the North Western corner of this is location in order to abandon and relocate a fire hydrant and water meter. The staging area, which will be approximately 200 feet by 100 feet, will be located within this parcel within the extent of available staging area (Reference Figure 2, Project Components).

Airport Hazards

The closest airport to the project site is the Garberville Airport operated by Humboldt County. The Garberville Airport is located approximately 19 miles south of the project site, and is the primary public airport serving southern Humboldt County. Crashes and fires associated with aircraft landing, take-off, birds and deer, and fueling operations near the airport are a potential source of hazardous conditions and material releases.

Emergency Response and Evacuation Planning

Federal and State laws require local jurisdictions to prepare Emergency Response Plans (ERPs) that address interruptions of water and power due to earthquakes, fires, floods, sabotage and terrorist acts. Humboldt County Office of Emergency Services (OES) is the primary agency responsible for emergency response and evacuation planning. The OES is responsible for alerting and notifying appropriate agencies when disaster strikes; coordinating all agencies that respond; ensuring resources are available and mobilized in times of disaster; developing plans and procedures for response to and recovery from disasters; and developing and providing preparedness materials for

the public. The project site is within the 100-year flood zone, but not within a tsunami inundation zone.

Wildland Fire

The project site is located in a State Responsibility Area (SRA) as classified by the California Department of Forestry and Fire Protection (CAL FIRE 2007). CAL FIRE has classified and mapped the fire severity zones within SRA areas within the State. The project site is classified as "Moderate" and the surrounding project area as "High."

a) Transport, Use, and Disposal of Hazardous Materials – Less than Significant Impact

Project construction would require the use of hazardous materials such as fuels, lubricants, paints, and solvents. Construction activities for the project would be short-term and one-time in nature, and would involve the limited transport, storage, use, or disposal of hazardous materials. Some examples of hazardous materials handling include fueling and servicing construction equipment on-site, and the transport of fuels, lubricating fluids, and solvents. These types of materials, however, are not acutely hazardous, and all storage, handling, and disposal of these materials are regulated by the DTSC, the U.S. EPA, the Occupational Safety & Health Administration (OSHA), and CAL FIRE.

Numerous laws and regulations ensure the safe transportation, use, storage and disposal of hazardous materials. Worker safety regulations cover hazards related to exposure to hazardous materials. Regulations and criteria for the disposal of hazardous materials mandate disposal at appropriate landfills. Because the MFMWS, contractors, and other construction service providers would be required to comply with existing hazardous materials laws and regulations for the transport, use, and disposal of hazardous materials, the impacts associated with the project having the potential to create a significant hazard to the public or the environment would be less than significant.

b) Upset or Accidents Involving Hazardous Materials – Less than Significant Impact

During construction, routine transport of hazardous materials to and from the project site could indirectly result in an incremental increase in the potential for accidents. Caltrans, the Federal Department of Transportation, and the California Highway Patrol (CHP) regulate the transportation of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers. Because the MFMWS, contractors, and other construction service providers would be required to comply with existing hazardous materials laws and regulations for the transport of hazardous materials, the impacts associated with the potential to create a significant hazard to the public or the environment would be less than significant.

c) Emit Hazardous Materials within 0.25 Mile of a School – No Impact

There is no impact related to the potential for the project to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school, as no public schools are located or proposed for construction within 0.25 mile of the project site. No impact has been identified.

d) Included on a List of Hazardous Materials Sites – Less than Significant Impact

There are no hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Hazardous Waste and Substances Site List or "Cortese" list) within the project area. According to the SWRCB Geo Tracker database, there is a closed LUST site associated with APN 081-121-013. The project will include limited ground disturbance within the North Western corner of this APN (081-

121-013) location in order to abandon and relocate a fire hydrant and water meter, it also includes the location of the staging area. The LUST case is closed and the underground storage tanks have been removed in 1999, and the project would therefore not create a hazard to the public or environment.

The nearest site on the remaining lists (hazardous waste and substances sites found on the DTSC EnviroStor database, solid waste disposal sited identified by the Water Board, and hazardous waste facilities subject to corrective action identified by the DTSC) is a land disposal site approximately two miles southeast of the project site. The project is not located on the Cortese list, contains a LUST case that has been closed since 2004, and is expected to have a less than significant impact.

e) Safety Hazard for People Residing or Working within Two Miles of a Public Airport – No Impact

The nearest public airport to the project site is the Garberville Airport south of Garberville, located approximately 19 miles south of the project site. The project site is not located beneath the approach, departure, or sideline zones of the airport, areas of greatest hazard to people on the ground. No impact has been identified.

f) Safety Hazard for People Residing or Working within Two Miles of a Private Airstrip– No Impact

There are no private airstrips within two miles of the project site. The project would not result in airport-related safety hazards for people residing or working in the project area. No impact would occur.

g) Impair or Interfere with an Adopted Emergency Response/Evacuation Plan – No Impact

The Humboldt County Sheriff's OES coordinates countywide response to disasters. OES is responsible for alerting and notifying appropriate agencies when disaster strikes; coordinating all agencies that respond; ensuring resources are available and mobilized in times of disaster; developing plans and procedures for response to and recovery from disasters; and developing and providing preparedness materials for the public. The OES would coordinate evacuation planning in the event of seismic events, tsunamis, slope failure, floods, storms, fires, and hazardous materials spills. The OES is responsible for maintaining the Humboldt County Emergency Operations Plan, which serves to address the planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies in or affecting Humboldt County. OES also maintains specific hazard response plans for earthquake, flooding, tsunamis, coastal storms, and other events. These response plans are used to determine the most appropriate evacuation routes based on the nature and extent of the hazard.

The project will not impair or interfere with any emergency response/evacuation plans and does not include development that would significantly increase the number of people exposed to potential emergencies. No impact would occur.

h) Exposure to Wildland Fires – Less than Significant Impact

The project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. The project area is within Moderate and High fire hazard severity zones according to CAL FIRE; however, the primary purpose of the project is the replacement of existing water lines along Boy Scout Camp Road, Myers Avenue, and Avenue of the

Giants with 6-inch capacity PVC or HDPE pipe, which would result in all fire hydrants meeting fire flow requirements. The impact is less than significant.

3.9 Hydrology and Water Quality

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	Less-Than-Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements?		✓		
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?				✓
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off- site?			✓	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?				✓
e) 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?				✓
f) Otherwise substantially degrade water quality?		✓		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				✓
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?				✓
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?				✓
j) Inundation by seiche, tsunami, or mudflow?				✓

3.9.1 Discussion

Surface Water

Myers Flat is surrounded by the Eel River to the west, south and east. The Eel River has received both State (1972) and Federal (1981) Wild and Scenic River designation. The three forks of the Eel River contain a diversity of river types originating in high mountain pine forests, flowing through steep canyons and coastal redwood forests, and emptying into the Pacific in a gently sloping valley.

The MFMWS is regulated by the SWRCB, Division of Drinking Water. The primary water source for Myers Flat is groundwater in subterranean stream flow of the South Fork Eel River. Water is extracted from one water supply well (Well No. 2), located in the southeastern part of town off of Boy Scout Camp Road, with a ground elevation of approximately 180 feet. The District's secondary source is a groundwater well (Well No. 1) located about 500 feet north of Well No. 2. The MFMWS well system has a maximum pumping capacity of 195 gallons per minute if both Well No. 1 and Well No. 2 are running. The maximum production capacity was compared to the low flows in the South Fork Eel River as measured by the USGS Stream gage near Miranda, CA. The minimum mean monthly flow for the period of stream flow records (1939 to 2016) was 55 cubic feet per second. At maximum well production capacity, Myers Flat has the potential to withdraw up to 0.79% of the subterranean stream flow of the South Fork Eel River. Based on the average water use in the month of September the highest use month, Myers Flat withdraws approximately 0.12% of the subterranean stream flow of the South Fork Eel River. Thus, the amount of water that Myers Flat withdraws from subterranean stream flow of the South Fork Eel River is less than substantial.

Stormwater

Stormwater drainage in the Myers Flat area consists of natural drainage and human made ditches and culverts with stormwater eventually flowing into local waterways.

Flooding

The project site is located near the Eel River between 165 feet to 210 feet in elevation. The Eel River is at approximately 145 feet in elevation in the project area. The project site is located within the 100-year flood zone, but is not within a tsunami inundation zone.

a, f) Violate Water Quality Standards or Degrade Water Quality – Less than Significant with Mitigation

Construction activities can introduce pollutants to stormwater runoff, including sediment, paints, solvents, pavement, construction debris and trash, as well as hydrocarbons and other fluids from construction vehicles. Though the impact would be reduced by the limited scale of ground disturbance, the most likely pollutant from the proposed project would be sediment created by soil disturbance during or immediately after construction. These potential pollutants are regulated under the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order Number 2009-0009-DWQ, NPDES Number CAS000002; a.k.a construction general permit) for stormwater discharges with construction activities of more than 1.0 acre; however, actual ground disturbance would be approximately 1/2 acre; therefore, the project would not trigger the requirement for a stormwater pollution prevention plan (SWPPP).

As appropriate, the construction would conform to Caltrans' stormwater pollution control manuals guidance and requirements within the Caltrans right-of-way, including along Avenue of the Giants.

The Construction Site BMPs Manual and the SWPPP and Water Pollution Control Program Preparation Manual would be consulted and conformed to.

One particular location adjacent to the project area contain a biologically sensitive area. There is an area with contiguous riparian vegetation which extends approximately 350 feet between Boy Scout Camp Road and the South Fork Eel River located in the western central portion of Boy Scout Camp Road between APNs 081-021-001 and 081-051-003 (see Figure 2). Without appropriate mitigation measures and environmental protection measures, project construction work involving movement of soils adjacent to the riparian area could result in adverse impacts to surface water quality in the South Fork Eel River. With incorporation of Environmental Protection Action 3 (Erosion Control) and Mitigation Measure HYD-1, explained below, the potential impact from earth work would be held to a less than significant level through confining the project work away from the biologically sensitive areas as much as feasibly possible, and through fiber rolls and other BMPs to prevent sediment from leaving the project construction zone and entering the riparian habitat area.

Dewatering of the construction work area could be required if groundwater accumulates in an excavation area. The discharge of construction dewatering could result in a source of sediment-laden water to local waterways if not properly controlled. With incorporation of Environmental Protection Action 4 (Construction Dewatering Reduction) into the project, the potential impact from construction dewatering activities would be held to a less than significant level. If dewatering is needed, Environmental Protection Action 4 (Construction Dewatering Reduction) also includes proper management measures to reduce water pollution.

Construction of the Project would also require the use of gasoline and diesel-powered equipment, such as trucks, excavators, graders, bulldozers, backhoes, compactors, and generators. Chemicals such as diesel, gasoline, lubricants, hydraulic fluid, transmission fluid, paints, solvents, glues, and other substances would be utilized during construction. An accidental release of any of these substances could degrade surface or ground water and cause a significant impact, particularly if this were to occur near the Eel River; therefore, the following mitigation is included.

Mitigation Measure HYD -1: BMPs to be Implemented During Construction

1. At all times during construction activities, the contractor shall minimize the area disturbed by excavation, grading, or earth moving to prevent the release of excessive fugitive dust. During periods of high winds (i.e. wind speed sufficient that fugitive dust leaves the site) contractor shall cover or treat areas of exposed soil and active portions of the construction site to prevent fugitive dust.
2. No construction materials, equipment, debris, or waste shall be placed or stored where it may be subject to wind, or rain erosion and dispersion. Material handling on and offsite shall be required to comply with California Vehicle Code Section 23114 with regard to covering loads to prevent materials spills onto public roads.
3. All construction equipment shall be equipped and maintained to meet applicable EPA and CARB emission requirements for the duration of the construction activities.
4. Throughout construction, contractor shall maintain adjacent paved areas free of visible soil, sand or other debris.
5. If stockpiled on or offsite, or if rain is expected, soil and aggregate materials shall be covered with secured plastic sheeting and runoff shall be diverted around them.
6. Drainage courses, creeks, or catch basins shall be protected with straw bales, silt fences or fiber rolls, and/or straw wattles.

7. Storm drain inlets from sediment-laden runoff shall be protected with sand bag barriers, filter fabric fences, straw wattles, block and gravel filters, and/or excavated drop inlet sediment traps.
8. Vehicle and equipment parking and vehicle maintenance shall be conducted in designated upland areas away from creeks or storm drain inlets.
9. Major maintenance, repair, and washing of vehicles and other equipment shall be conducted offsite or in a designated and controlled area.
10. Construction debris, plant and organic material, trash, and hazardous materials shall be collected and properly disposed.
11. See also Environmental Protection Action 3 – Erosion Control.

With implementation of Environmental Protection Action 3 (Erosion Control) and 4 (Construction Dewatering Reduction), and Mitigation Measure HYD-1, the impacts to water quality would be less than significant after mitigation.

b) Substantially Deplete Groundwater Supplies or Interfere with Groundwater Recharge – No Impact

MFMWS's source of water are two groundwater wells located off of Boy Scout Camp Road and Myers Avenue. Storage for the system is a 350,000 gallon covered concrete water storage tank, located at approximately 300 feet elevation. The project does not change the size or capacity of the system. No aspect of the project would substantially deplete groundwater supplies or interfere with groundwater recharge; therefore, no impact has been identified.

c) Alter Drainage Patterns – Less than Significant Impact

The project would not substantially alter the existing drainage pattern of the project site or in the area, and would not alter any waterway. Drainage from the project site generally infiltrates into the soil and into the Eel River basin. Construction activities such as excavation, grading, and trenching would temporarily disturb the ground surface of the project area and could result in erosion if not properly controlled and repaired. With incorporation of Environmental Protection Action 3 (Erosion Control), and Mitigation Measure HYD-1, into the project, the potential impact from construction activities would be held to a less than significant level by including erosion control measures and BMPs to reduce soil loss and water pollution. Following construction, the drainage patterns at the project site would remain the same as current patterns. No stream or river courses would be altered. The impact would be less than significant.

d, e) Increase Runoff Resulting in Flooding or Exceed Capacity of Storm Drain System – No Impact

The proposed project would not change the rate or amount of runoff, or the existing drainage in the area and there would be minimal changes to existing surface runoff patterns. The proposed project would not create or contribute runoff water and would not add sources of polluted runoff. No impact would occur.

g, Place Housing within a 100-Year Flood Zone – No Impact

The proposed project does not involve construction of housing. Therefore, there would be no impact.

h) Place Structures within a 100-Year Flood Zone – No Impact

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Community Panel Number 060060 1550 B, effective date July 19, 1982 (and Humboldt County's GIS FEMA Flood zone data from 6/21/17), show that the project site is located within the 100-year flood zone (NFIP 1982). However, the project would include buried water pipelines, gate valves, water meters and fire hydrants, and no above ground structures that could be damaged in the event of flooding. No impact has been identified.

i) Flooding From a Levee or Dam Failure – No Impact

According to the Humboldt Operational Area Hazard Mitigation Plan, the Eel River which surrounds the project site to the east, south and west is within the Scott Dam inundation area; however, the project site is not within the dam inundation area (Humboldt County 2014). The project does not include any activities or components which would expose people or structures to a significant risk of loss from flooding from a levee or dam failure. No impact has been identified.

j) Inundation by Seiche, Tsunami, or Mudflow – No Impact

Mudflows occur on steep slopes where vegetation is not sufficient to prevent rapid erosion but can occur on gentle slopes if other conditions are met. Other factors are heavy precipitation in short periods and an easily erodible source material. Based on area characteristics (flat terrain), the project site is not down-gradient of a debris-flow source and would not be subject to mudflows. The project site is also not near any enclosed water body capable of producing a seiche event. According to the State of California Humboldt County Tsunami Inundation Map for Emergency Planning, the entire project site is outside of the tsunami inundation zone. No impact would occur.

3.10 Land Use and Planning

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	Less-Than-Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?				✓
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				✓
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				✓

3.10.1 Discussion

Humboldt County General Plan Land Use designations identify both the types of development (e.g., residential, commercial, and industrial) that are permitted and the density or intensity of allowed development. The proposed project would mostly take place within the existing road ROW. Adjacent General Plan Land Use designations include: Commercial Recreation (CR), Industrial General (IG), Residential Estates (RE 1-5), Residential Agriculture (RA 5-20), Conservation Floodway (CF), and Public Lands (P)). Adjacent zoning designations include: Flood Plain (FP), Agriculture General (AG-B-5[5]-F), Heavy Industrial (MH-F-Q), Highway Service Commercial (CH-D-F-Q) and Unclassified (U) (Humboldt County 2018a). Zoning within the project is expected to change by October 2019 in order to achieve consistency with General Plan Land Use designations which were last updated during the General Plan Update, completed in October 2017. California counties have two years to update zoning after adopting a General Plan, as stated in General Plan Implementation Measure 6 (Humboldt County 2017).

According to California Government Code Section 53091(d) and (e), building and zoning ordinances of a county shall not apply to the location or construction of facilities for water storage, treatment, or transmission. This project will not require a grading permit due to the exemption for excavations for wells, tunnels or utilities, as is stated in Section 331-12 within Division 3, Building Regulations of Title III, Land Use and Development in Humboldt County government code (Humboldt County 2018b).

a) Physically Divide an Established Community – No Impact

The project would include the replacement of existing water lines along Boy Scout Camp Road, Myers Avenue, and Avenue of the Giants with 6-inch capacity PVC or HDPE pipe and installation of water meters and water service connections. No aspect of the project would physically divide the community; therefore, no impact would occur.

b) Conflict with Applicable Land Use Plans, Policies or Regulations – No Impact

The project would not conflict with any plans, policies or regulations. As noted previously, the project is a water pipeline replacement project; therefore, the building and zoning ordinances of Humboldt County are not applicable per California Government Code Section 53091(d) and (e). The project site is not within the coastal zone of Humboldt County. No impact has been identified.

c) Conflict with any Applicable Habitat Conservation Plan – No Impact

Humboldt County does not have an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved conservation plan applicable to the proposed project and project site. No impact would occur.

3.11 Mineral Resources

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	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?			✓	
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?			✓	

3.11.1 Discussion

According to the Humboldt County General Plan Update (Humboldt County 2017), the county has a wealth of mineral resources. Over 90 extraction sites produce sand and gravel, hard rock, and metals essential for the economic well-being of the county. Mines and quarries in Humboldt County primarily produce shale and quarry stone used for base rock and other structural applications. There are over 30 active rock quarries permitted in the county, with a permitted annual potential yield of approximately 660,000 cubic yards per year. There are no extraction sites in the project vicinity. The nearest are several miles upstream and downstream from the project site.

a, b) Result in the Loss of Availability of a Known Mineral Resource of Value to the Region or Delineated by a General Plan, Specific Plan or other Land Use Plan – Less than Significant Impact

There are no mining operations in the immediate project area. The project would not require the use of a substantial amount of any mineral resource, and would not result in the loss of availability of known mineral resources of value to the State, region or locally; therefore, the impact would be less than significant.

3.12 Noise

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	Less-Than-Significant Impact	No Impact
Would the project:				
1. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		✓		
2. Exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?			✓	
3. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			✓	
4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		✓		
5. 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 expose people residing or working in the project area to excessive noise levels?				✓
6. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				✓

3.12.1 Discussion

The surrounding area is primarily characterized by undeveloped forest land, low density residential homes, a few commercial uses along Avenue of the Giants, Highway 101, and the Eel River. Noise levels in the project area vary depending on the proximity of the noise source(s) to human activity. The major noise source in the project area includes vehicular traffic on Highway 101. Highway 101 runs north and south and is approximately 230 feet north of Avenue of the Giants. Ambient noise (background noise) levels in the project area are reduced as distance from the human activities listed above are increased. A noise sensitive receptor is a receptor at which there is a reasonable degree of sensitivity to noise, such as residences, schools, hospitals, elderly care facilities, libraries,

cemeteries, and places of worship. Noise sensitive receptors and noise sensitive areas in the project area and immediate vicinity include residences adjacent to the project site.

The California General Plan Guidelines include guidelines for noise-compatible land uses. The Humboldt County General Plan contains a table, Land Use/Noise Compatibility Standards, which follows the guidelines adopted by the Office of Noise Control of the California Department of Health Services. The Land Use/Noise Compatibility Standards provide a range of acceptable and unacceptable noise levels for a variety of land use categories utilizing Ldn values. Ldn is the Day-Night Noise Level, and is the average sound level in decibels, excluding frequencies beyond the range of the human ear, during a 24-hour period with a 10 dB (decibel) weighting applied to night time sound levels. The project vicinity contains mostly residential houses which, according to the Land Use/Noise Compatibility Standards contain noise levels classified as clearly acceptable up to a maximum of 55 Ldn, followed by normally acceptable levels with a range of 56 to 60 Ldn, normally unacceptable levels with a range of 61 to 75 Ldn, and any noise levels beyond 76 considered clearly unacceptable.

The existing noise sources at the project site include vehicular traffic on Highway 101. Table 13-A (Inventory of Prominent Sources of Noise within Communities of Humboldt County) in the Humboldt County Noise Element does not identify any prominent noise sources in the community of Myers Flat (Humboldt County 2017).

a, d) Exposure to Noise in Excess of Established Standards or Substantially Increase Existing Levels – Less than Significant Impact with Mitigation

The primary noise source in the project area is and would continue to be transportation-related. Highway 101 would continue to have noise impacts in the project area; however, noise impacts from the project itself would be minimal due to the nature and duration of the project.

Construction Noise Impacts

The construction phase of the project would require the use of heavy equipment for excavation, trenching, grading, etc., and would temporarily increase ambient noise levels for the duration of project construction. Construction activities could also involve the use of smaller power tools, generators, and other sources of noise. During construction, noise levels would vary based on the amount of equipment in operation and the location of the activity in proximity to adjacent uses. Site work and construction of the pipeline, gate valves, water service connections, water meters and fire hydrants would take approximately three months to complete with site work starting approximately one month prior. Pipeline construction is linear and approximately 200 to 300 feet of installation could be completed per day, and so the construction is not expected to be in front of a particular location for more than a few days. Noise levels would be consistent with the reference noise levels in Table 3.12-1: Construction Equipment Reference Noise Levels as Measured at 50 Away), see Table 3.12-1 below.

Sound from a point source is known to attenuate, or reduce, at a rate of 6 dB for each doubling of distance. For example, a noise level of 84 dB Leq (equivalent continuous sound level) as measured at 50 feet from the noise source would attenuate to 78 dB Leq at 100 feet from the source and to 72 dB Leq at 200 feet from the source to the receptor. Based on the reference noise levels, above, the noise levels generated by construction equipment at the project site may reach a maximum of approximately 85 dB Leq at 50 feet during project construction.

Table 3.12-1: Construction Equipment Reference Noise Levels as Measured at 50 Feet Away

Equipment	Noise Level (dB)	Equipment	Noise Level (dB)
Drill Rig Truck	84	Jackhammer	85
Horizontal Boring Hydraulic Jack	80	Large Generator	82
Front End Loader or Backhoe	80	Paver or Roller	85
Excavator	85	Dump Truck	84

Source: Federal Highway Administration, 2006.

The closest noise sensitive receptors are neighboring homes along Avenue of the Giants, Myers Avenue and Boy Scout Camp Road. Residences are approximately 25 feet or farther from each roadway where construction would occur. At this distance, and due to the temporary, and short-term nature of construction work in any one location, exterior noise levels near the full reference level (up to 85 dB Leq) would be above the normally acceptable exterior noise level in a public right-of-way according to the Humboldt County General Plan. A typical building can reduce noise levels by 15 to 25 dB with the windows closed (U.S. EPA 1974), thereby reducing interior noise levels within homes even further.

To further reduce any potential adverse effects to noise sensitive receptors, Mitigation Measure NOI-1 (Noise Reduction Actions) has been incorporated into the project. Under Mitigation Measure NOI-1 sound abatement measures such as construction hour limitations; semi-stationary equipment (e.g., generators, compressors, etc.) would be located as far as possible from residences near the project site or shielded if feasible; and equipment muffler/maintenance requirements would be implemented. With the implementation of Mitigation Measure NOI-1, construction noise would be limited in duration and intensity such that construction noise at sensitive receptors would be less than significant. Additionally, there would be no construction on Sundays except in an emergency.

Mitigation Measure NOI-1– Noise Reduction Actions

During project construction, the following actions will be incorporated into the project to reduce daytime noise impacts to the maximum extent feasible:

1. A preconstruction meeting/conference call will be held among the MFMWS, construction manager and the general contractor to confirm that the following noise reduction practices are to be implemented in the appropriate phase of construction.
2. Hours of construction will be limited to between 7:00 AM and 6:00 PM, Monday through Friday, and 9:00 AM and 5:00 PM on Saturdays. No construction will be allowed on Sundays and holidays, except in an emergency. Specifications/plans would note these hours of construction.
3. Semi-stationary equipment (e.g., generators, compressors, etc.) will be located as far as possible from residences along the water transmission line or shielded if feasible.
4. The quietest available equipment and electrically-powered equipment will be used, rather than internal combustion engines where feasible.
5. Equipment and on-site trucks used for project construction will be equipped with properly functioning noise control devices such as mufflers, shields, and shrouds. All construction equipment will be inspected at periodic intervals to ensure proper maintenance and resulting lower noise levels.

6. Impact tools (e.g., jack hammers, pavement breakers, rock drills) used for project construction will be hydraulically or electrically powered wherever possible to avoid noise associated with compressed-air exhaust from pneumatically powered tools.

7. Construction of the project would occur during daylight hours only, and operation of the project would not require lighting to be installed. In addition, no new lighting is proposed. As a result, there would be no new source of substantial light or glare.

8. Prior to construction, a qualified biologist would conduct environmental awareness training sessions to familiarize all construction personnel and supervisors with sensitive resources present at or near the project site. This training would also be provided to any new worker during the course of implementation of the project.

Due to the temporary nature of the project, and Mitigation Measure NOI-1 incorporated into the project, the periodic elevation in noise is less than significant.

b) Exposure to Ground Borne Vibration or Noise – Less than Significant Impact

The project is not expected to generate unusual ground borne vibration or ground borne noise levels. Construction activities typically create a small increase in ground borne vibrations, but the vibration level is rarely significant and diminishes rapidly with distance from the construction equipment unless unusual geological conditions are present. Construction equipment and construction operations for the project would be similar to construction operations at many construction sites. Only pile driving equipment is likely to produce vibration levels felt over larger distances and capable of creating cosmetic damage to older fragile buildings at distances of 100 feet from the equipment. The project does not include any pile driving or blasting. The restriction of working hours under would eliminate the impact of equipment-generated vibration during night-time, early morning, and evening hours when people are generally more sensitive to noise and vibration. A less than significant impact would occur related to ground borne vibration or ground borne noise levels.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The proposed project would replace the aging pipes which are prone to breaking and leaks with new 6-inch capacity PVC or HDPE pipe, new gate valves, fire hydrants, water meters and water service connections. These facilities would not produce any noise above the baseline maintenance that currently exists; therefore, there would be no operational impact.

e, f) Exposure of People Residing or Working Near a Private or Public Airport to Excessive Noise Levels – No Impact

The nearest public airport to the project site is the Garberville Airport, located approximately 19 miles south of the project site. The project site is not located beneath the approach, departure, or sideline zones of the airport. There are no private airstrips in the project vicinity. The project would not expose people residing or working near the Garberville Airport or a private airstrip to excessive noise levels, therefore, no impact would occur.

3.13 Population and Housing

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

3.13.1 Discussion

Myers Flat is a Census Designated Place according to the Census Bureau. The 2010 U.S. Census reported that Myers Flat had a total population of 146, and total housing units was 110 (U.S. Census Bureau 2010). The 2010 U.S. Census reported that 146 people (100 percent of the population) lived in households and none were in group quarters. Total households in 2010 were estimated at 80 and average household size was 1.83. Vacant housing units totalled 30 (27 percent) in 2010.

a) Induce Substantial Population Growth – No Impact

The project would include the replacement of existing water lines along Boy Scout Camp Road, Myers Avenue, and Avenue of the Giants with 6-inch capacity PVC or HDPE pipe. New gate valves, water meters, and fire hydrants would be installed along the replaced pipeline. The project would not create any housing nor necessitate the development of housing. It would not result in the extension of utilities or roads or other infrastructure into outlying or exurban areas and would not directly or indirectly lead to the development of new sites that would induce population growth. No impact has been identified.

b, c) Displace Housing or People – No Impact

The project pipeline, valves and fire hydrants would be situated within the road ROW as currently exists. Therefore, the project would not result in the displacement of any housing or people. No impact would occur.

3.14 Public Services

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

3.14.1 Discussion

For fire protection services, the project area is primarily protected by the volunteer Myers Flat Fire Protection District and seasonally by CAL FIRE. The Humboldt County Sheriff's Office provides a variety of public safety (court services, corrections, emergency operations) and law enforcement services throughout the county including Myers Flat. The Humboldt County Sheriff's Office provides law enforcement services to the residents of Myers Flat and other unincorporated areas in the region.

The Southern Humboldt Unified School District provides educational services to students in southern Humboldt County. The schools serving Myers Flat are located in adjacent communities such as Miranda, Weott, and Redway. There are no libraries in Myers Flat. Parkland in the project area includes the Humboldt Redwoods State Park. There are a number of recreational opportunities along the Eel River in the project vicinity.

a) Substantial Adverse Physical Impacts Associated with New or Altered Fire or Police Protection, Schools, Parks, or other public facilities – No Impact

As discussed in Section 3.13.1, the project would not directly or indirectly induce population growth nor create new demand for services. As noted in Section 3.9.1, the project would not increase capacity. Therefore, the project would have no impact on the service ratios, response times, or other performance objectives of schools, parks, and other public facilities and services that are based on population growth. The project would not require new or physically altered government facilities to serve the project site, such as bathroom services will be self-contained and located onsite within the staging area. No impact would occur.

3.15 Recreation

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	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?				✓
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?				✓

3.15.1 Discussion

Reference Section 3.14.1, above, for information on recreational resources in Myers Flat. The project site does not include any recreational facilities.

a) Increase in the Use of Existing Facilities Resulting in Substantial Physical Deterioration – No Impact

As discussed in Impact 3.13.1a (Population and Housing), the project would not directly or indirectly induce substantial population growth. As noted in Section 3.9.1, the project would not increase capacity. Therefore, the project would not increase the use of regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. No impact would occur.

b) Development of Recreation Facilities that Could Result in Adverse Physical Effects on the Environment – No Impact

The project would not include recreational facilities. As discussed in Impact 3.13.1a (Population and Housing), the project would not directly or indirectly induce substantial population growth. As noted in Section 3.9.1, the project would not increase capacity. Therefore, the project would not require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. No impact would occur.

3.16 Transportation/Traffic

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	Less-Than-Significant Impact	No Impact
Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			✓	
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?				✓
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				✓
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?			✓	
e) Result in inadequate emergency access?			✓	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?				✓

3.16.1 Discussion

Roadways

Highway 101, located just north of the project site is the principal highway for north-south travel through Humboldt County. Through Myers Flat, Highway 101 includes two lanes in both directions. The roadway shoulder has an adequate width for cyclists and Highway 101 is designated as the Pacific Coast Bike Route. There is no sidewalk for pedestrians. Access to the project site is from exit 656 on Highway 101 via Avenue of the Giants (see Figure 1, Project Vicinity).

Level of Service

Level of Service (LOS) is a quantitative measure that characterizes operation of transportation facilities. Using data relative to volumes, right-of-way (ROW) controls, and lane configurations, the relative experience of drivers using the transportation system can be evaluated. It “grades” the operation of the facility similar to a report card; a LOS of "A" is representative of generally free-flowing conditions while a LOS of “F” is representative of long delays or failed operations. Highway 101 LOS throughout the project area is LOS A and B (Dyett & Bhatia 2002).

Public Transportation

Southern Humboldt Intercity Transit provides service to Myers Flat Monday through Friday, with no service on weekends. Redwood Transit System provides Greyhound/Amtrak service along Highway 101 through Myers Flat.

Pedestrians and Bicycles

Walking and cycling are year-round transportation choices for many Humboldt County residents. Pedestrian facilities (sidewalks on public streets) are not provided in Myers Flat. For bicycling, many portions of Highway 101 have narrow shoulders, large vehicle traffic and/or limited visibility.

a) Conflict with an Applicable Plan, Ordinance, Policy, or Program Establishing Measures of Effectiveness for the Performance of the Circulation System – Less than Significant Impact

Project activities would generate temporary construction-related traffic, including: 1) passenger vehicles transporting construction and inspection workers to and from the site, 2) heavy trucks/haulers accessing the site to deliver materials and remove trash and debris, and 3) partial lane/road closures outside of the state highway ROW and within the county road during construction. Complete road closures are not allowed; however, one-way lane closures from one to two days are anticipated on, Myers Avenue, Maple Lane and Boy Scout Camp Road to allow for pipeline installation within these roadways. A Caltrans Encroachment Permit would be required for any construction activities within Avenue of the Giants (Highway 254) and a Humboldt County Encroachment Permit would be required for any construction activities within Boy Scout Camp Road, Meyers Avenue, and Maple Lane. No lane closures in the state highway ROW shall be implemented.

Project construction activities are expected to take approximately three months between June and December 2019 and/or 2020. It is assumed that Project construction would consist of five work days per week Monday through Friday) from the hours of 7:00 AM and 6:00 PM, and optional work 9:00 AM and 5:00 PM on Saturdays. No construction would be allowed on Sundays, except in an emergency. Because of the temporary nature of project activities, including vehicle/truck trips and construction duration, project activities would increase traffic on local roadways, but not create a substantial increase in traffic on roads within the project area and on Highway 101. Additionally, the contractor would prepare a detailed Traffic Control Plan for all work areas, and would submit the plan to the project engineer for approval at the pre-construction meeting. The Traffic Control Plan would comply with all required permits (including state and county encroachment permits) and other guidelines listed on the project 95 percent plans. The contractor would be advised that no full road closures are allowed.

Given the low traffic levels on Myers Flat roadways during the week, the small scale and duration of project construction, the potential impacts to motor vehicles, pedestrians, and bicyclists would be minor.

For long-term project operations, the project would only generate minimal traffic associated with monitoring and maintenance activities throughout the year at similar or reduced levels compared to the existing facility. The impact is less than significant.

b) Conflict with an Applicable Congestion Management Program – No Impact

The project area is not subject to a Congestion Management Program (CMP) and does not have a traffic congestion problem, with all area streets and roads below capacity; therefore, there would be no impact.

c) Result in a Change in Air Traffic Patterns – No Impact

No aspect of the project would affect air traffic patterns or operations of the Garberville Airport; therefore, there would be no impact.

d) Substantially Increase Hazards due to a Design Feature or Incompatible Use – Less than Significant Impact

The project would not change the geometry of any street or the roadway network in the project area. Therefore, no potentially hazardous roadway design features would be introduced by the project. Traffic trips to and from the project site for operational monitoring and maintenance would remain the same or similar as under existing conditions.

As discussed above, the presence of construction vehicles and equipment on nearby roadways could increase the normal traffic hazard in the project area. Work hours would be confined to 7:00 AM to 6:00 PM, Monday through Friday, and 9:00 AM to 5:00 PM on Saturdays. No construction would be allowed on Sundays, except in an emergency.

Construction equipment and delivery trucks would access the project site from off exit 656 from Highway 101 in Myers Flat, then right on Avenue of the Giants. Construction vehicles would not be parked to block public ROW. The project would not substantially increase hazards due to a design feature or incompatible use; therefore, the impact is less than significant.

e) Result in Inadequate Emergency Access – Less than Significant Impact

The project would not result in inadequate emergency access. The project would comply with applicable Fire Department regulations for access, and California Building Standards Code (Title 24) for safety. The MFMWS would also provide the local fire department with a full site plan for review, including location of all project components, fences, ingress/egress points, or other features that might affect fire department access, with unobstructed fire lanes for access identified. All project area roadways would provide adequate turning radii for emergency services (fire trucks) and deliveries. MFMWS's compliance with the applicable regulations and standards stated above, would ensure that adequate emergency access would be provided. The impact is less than significant.

f) Conflict with Adopted Policies, Plans, or Programs Regarding Public Transit, Bicycle, or Pedestrian Facilities, or Otherwise Decrease the Performance or Safety of Such Facilities – No Impact

The Humboldt County General Plan and Humboldt County Regional Transportation Plan are the guiding documents addressing alternative transportation in the project area. The project would not conflict with the policies of these plans and would not adversely affect facilities for public transit, bicycles, or pedestrians. There would be no impact.

3.17 Tribal Cultural Resources

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

3.17.1 Discussion

This section provides a description of the existing tribal cultural resources in the project area and evaluates changes to those conditions that would result from implementation of the Project. Similar to Chapter 3.05 (Cultural Resources), this section discusses impacts to cultural resources directly related to Native American tribal cultures that populated the area where the Project is located. The distinction for tribal cultural resources is that they are described as a site, feature, place, or 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.

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a, b) 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 a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in

subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe? (Less than Significant with Mitigation)

CEQA requires lead agencies to determine if a proposed project would have a significant effect on tribal cultural resources. The CEQA Guidelines define tribal cultural resources as: (1) a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American Tribe that is listed or eligible for listing on the California Register of Historical Resources, or on a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or (2) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant according to the historical register criteria in Public Resources Code Section 5024.1(c), and considering the significance of the resource to a California Native American tribe.

The records and literature search found no previously recorded tribal cultural resources within or adjacent to the project area (Roscoe and Associates 2015, updated 2018). One tribe, the Wiyot, has requested formal notification of proposed projects in Humboldt County per PRC Section 21080.3.1. SWCRB sent a notification letter and invitation to consult on the Project by certified mail on August 7, 2018. The Wiyot received the letter on August 8, 2018 but did not request consultation. The Native American Heritage Commission (NAHC) was contacted regarding sacred lands within the Project Area. The NAHC conducted a search of the Sacred Lands File on September 4, 2015 and reported that they have no records of Native American Cultural Resources within the Project Area.

Although no Tribal Cultural Resources have been identified, the potential exists to encounter as-of-yet unknown tribal cultural resources materials at the project sites during project-related construction activities. If such resources were to represent “tribal cultural resources” as defined by CEQA, any substantial change to or destruction of these resources would be a potentially significant impact.

Mitigation Measure TCR-1: Protect Tribal Cultural Resources during Construction Activities

If potential tribal cultural resources are uncovered, the contractor shall halt work, and workers shall avoid altering the materials and their context. Project personnel shall not collect cultural materials. MFMWS shall notify the Round Valley Reservation, Bear River Band of Rohnerville Rancheria, the InterTribal Sinkyone Wilderness Council, and the Eel River Nation of Sovereign Wailaki. MFMWS, in coordination with the tribes above, shall determine if the resource qualifies as a tribal cultural resource under CEQA. If it does, then all work must remain stopped in the immediate vicinity to allow evaluation of any materials. MFMWS shall ensure that qualified resources are avoided or protected in place, in accordance with the requests of the tribes above, to the extent feasible. Work may proceed on other parts of the project while mitigation for tribal cultural resources is being carried out.

Implementation of Mitigation Measure TCR-1 would reduce this impact to a less-than-significant level because a plan to address discovery of unanticipated buried tribal cultural resources and to preserve and/or record those resources consistent with appropriate laws and requirements would be implemented.

3.18 Utilities and Service Systems

	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporation	Less-Than-Significant Impact	No Impact
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				✓
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			✓	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?				✓
e) 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?				✓
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			✓	
g) Comply with federal, state, and local statutes and regulations related to solid waste?			✓	

3.18.1 Discussion

Wastewater

The only wastewater facilities are private septic tanks and leach fields in Myers Flat. The community has a long term goal of installing a community sewer system according to the Avenue of the Giants Community Plan (Humboldt County 2000).

Stormwater

See Section 3.9.1 "Stormwater" for a discussion of stormwater.

Water Supply

The MFMWS withdraws water from two groundwater wells located off of Boy Scout Camp Road and Myers Avenue. Storage for the system is a 350,000 gallon covered concrete water storage tank, located at approximately 300 feet elevation. From the well, the main line to the tank consists of 8-

inch PVC and 10-inch HDPE piping. Other main lines that service the rest of Myers Flat are primarily 2-inch and 4-inch steel or PVC. The current water distribution system is composed of a single loop and several dead-end transmission lines. Transmission lines with dead-ends can be prone to water quality issues, and pose a problem should a breakage or other emergency in the transmission line occur.

In 2014, MFMWS completed construction of a new groundwater well, a new pipeline between the well and tank, and a new roof and improvements to the existing storage tank. The pipeline replacements that took place included sizing to meet the fire flow requirements of the Myers Flat Fire District, set at 1,000 gpm.

Solid Waste

Recology provides waste and recycling collection services to commercial, residential, and industrial customers in Myers Flat and surrounding communities. Recology's main facilities are located in Fortuna and a transfer station is located in the Redway area.

The Humboldt Waste Management Authority manages the transport of the solid waste for disposal at either the Anderson Landfill in Shasta County, or Dry Creek Landfill in Medford, Oregon. The Anderson Landfill has a daily permitted disposal of about 1,018 tons/day, and a remaining capacity of about eight million tons. The Anderson Landfill is not expected to close until 2036. The Dry Creek Landfill has a remaining capacity of about 50 million tons. It is anticipated that the Dry Creek Landfill could provide disposal capacity for its current service area for another 75 to 100 years. (Humboldt County 2017)

a, e) Exceed Applicable Wastewater Treatment Requirements of Wastewater Capacity – No Impact

The project would replace the aging water pipes which are prone to breaking and leaks. The project would not cause any increase or change in wastewater and would, therefore, not have an impact on wastewater treatment requirements or capacity. No impact would occur.

b, c) Require Construction or Expansion of New Water or Wastewater, or Stormwater Facilities – Less than Significant Impact

The project would not require construction or expansion of new water, wastewater or stormwater facilities, which would cause significant environmental effects. The project would simply replace the aging pipes with new pipes, new gate valves, water meters, and fire hydrants. The impact is less than significant.

d) Have Sufficient Water Supplies to Serve the Project – No Impact

The project would not increase the capacity or demand of the water system. No additional water supply would be necessary to serve the proposed pipeline. No impact would occur.

f, g) Have Sufficient Landfill Capacity and Comply with Statutes Related to Solid Waste – Less than Significant Impact

The project would generate a small volume of construction waste that would be hauled by the construction contractor to an approved disposal site. Waste would include the existing pipelines to be replaced, construction materials remnants, replaced materials, and worker-generated trash and debris. This would be a less than significant impact on landfill capacity with the implementation of federal, State, and local statutes and regulations related to solid waste.

3.19 Mandatory Findings of Significance

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

3.19.1 Discussion

a, c) Degrade Environmental Quality or Adversely Affect Human Beings – Less than Significant with Mitigation

Because of the small scale and scope of the project, previously developed footprint of the project, and with implementation of the environmental protection actions and mitigation measures presented herein, the project as a whole does not have the potential to significantly degrade the quality of the environment, including biological resources, cultural resources, hydrology and water quality, noise, or tribal cultural resources.

b) Cumulatively-Considerable Impacts – Less than Significant Impact

The project's individual impacts would not add appreciably to any existing or foreseeable future significant cumulative impact, such as visual quality, historic resources, traffic impacts, or air quality degradation. Incremental impacts, if any, would be small and undetectable. As reported throughout this document, cumulative impacts to which this project would contribute would either be less than significant or be mitigated to a less than significant level.

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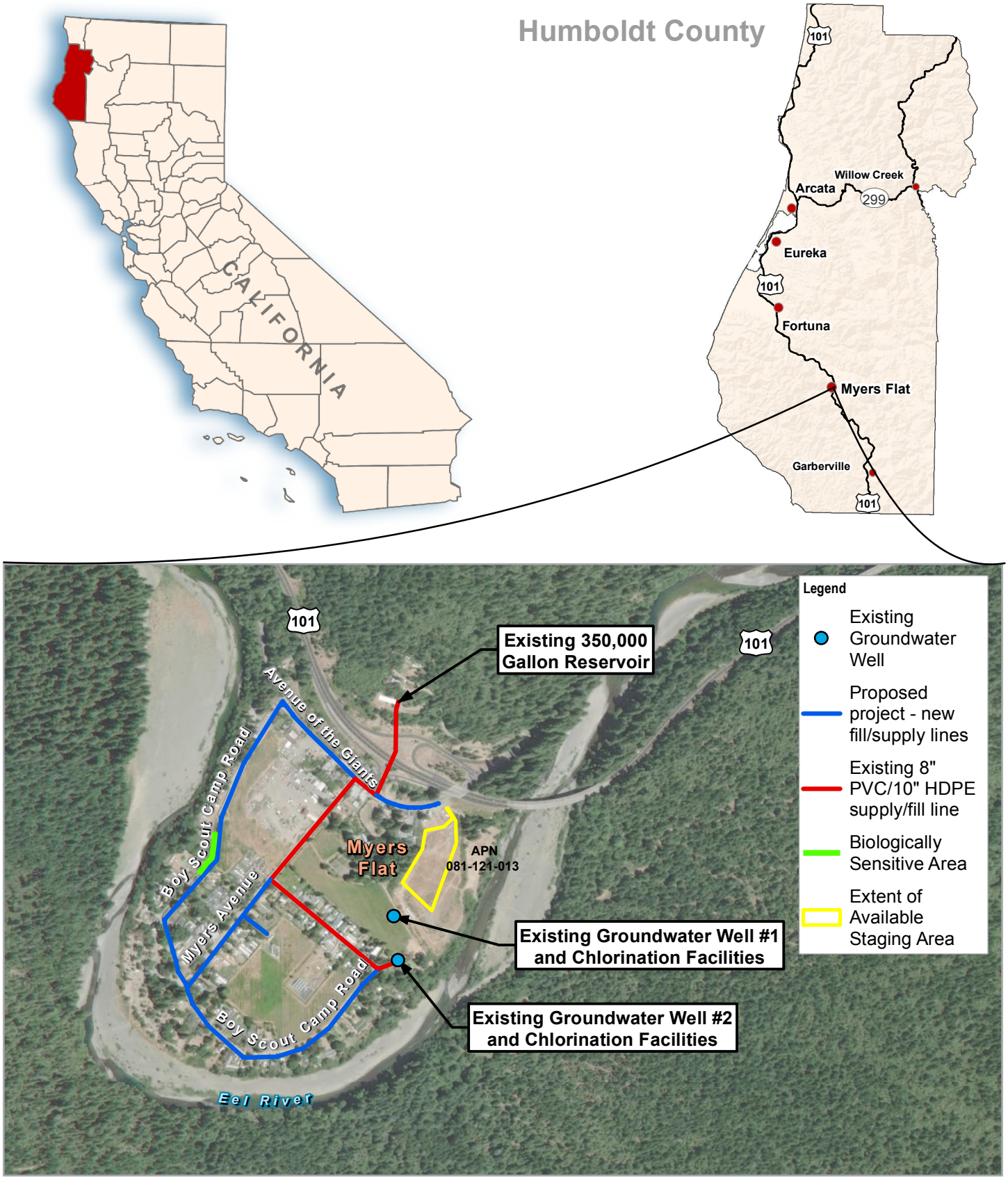
Figures



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Grid: NAD 1983 StatePlane California I FIPS 0401 Feet

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Myers Flat Mutual Water System
Distribution System Improvement Project

Project No. **8412081**
Revision No. **-**
Date **23 Oct 2018**

Project Vicinity

FIGURE 1

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Data source: Sources: Esri, USGS, NOAA
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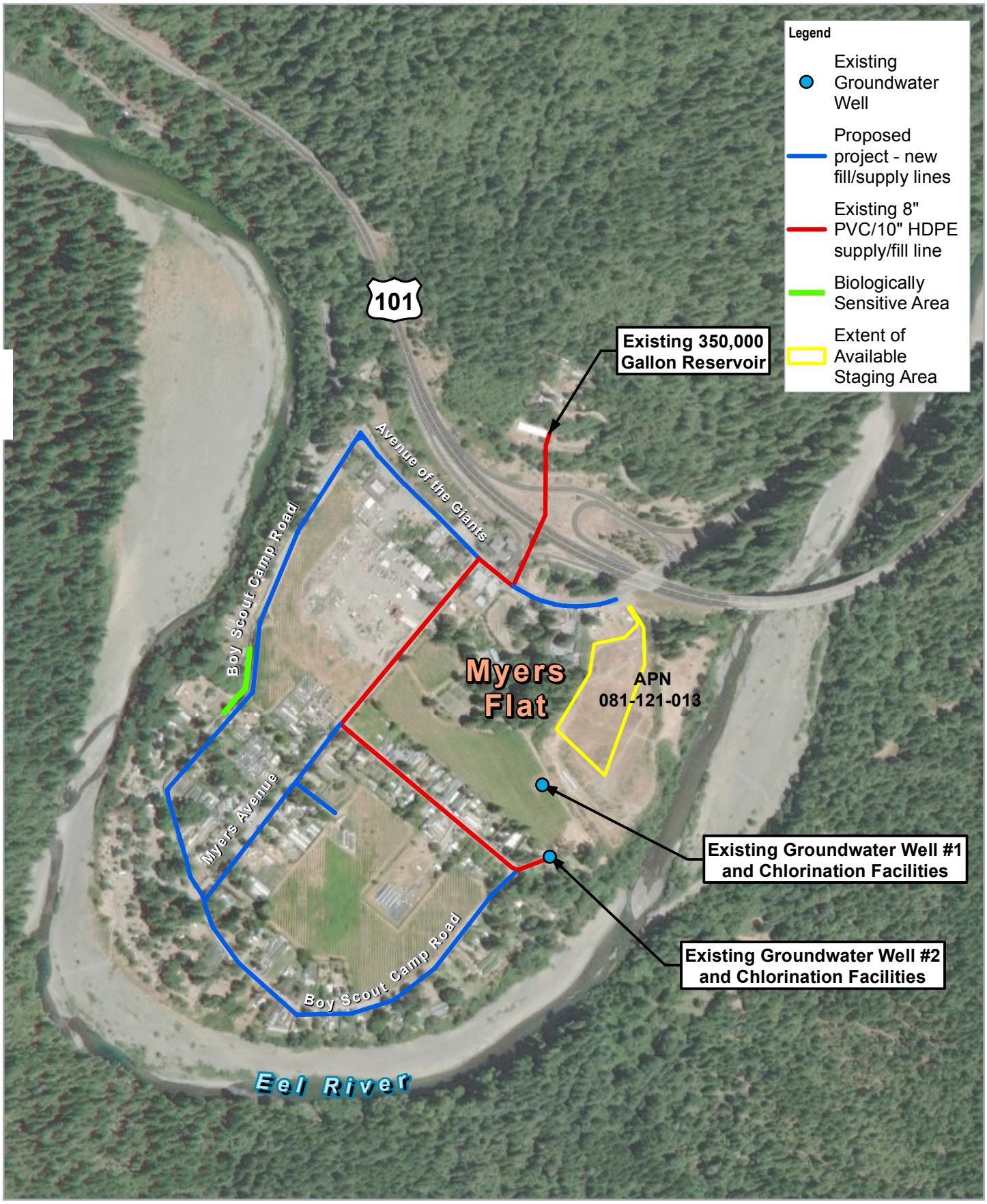

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Myers Flat Mutual Water System
Distribution System Improvement Project

Project No. **8412081**
Revision No. **-**
Date **23 Oct 2018**

Project Components

FIGURE 2

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Data source: Sources: Esri, USGS, NOAA
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community. Created by: jclark2

Appendices

Appendix A – APNs Within the Project

Prepared for the Myers Flat Mutual Water System
Myers Flat Distribution System Improvement Project

APNs:

1. 081-111-015
2. 081-021-041
3. 081-021-045
4. 081-021-025
5. 081-021-034
6. 081-021-020
7. 081-032-013
8. 081-032-014
9. 081-032-015
10. 081-121-013
11. 081-011-004
12. 081-021-001
13. 081-051-023
14. 081-051-022
15. 081-051-021
16. 081-051-006
17. 081-051-003
18. 081-051-027
19. 081-051-028
20. 081-051-009
21. 081-051-020
22. 081-061-004
23. 081-101-001
24. 081-071-025
25. 081-101-009
26. 081-101-010
27. 081-071-014
28. 081-071-015
29. 081-101-005
30. 081-101-006
31. 081-101-007
32. 081-091-001
33. 081-081-005
34. 081-091-005
35. 081-091-014
36. 081-091-007
37. 081-091-008
38. 081-081-008
39. 081-091-011
40. 081-091-012
41. 081-121-005
42. 081-051-020
43. 081-071-020
44. 081-071-017
45. 081-051-013
46. 081-042-001
47. 081-071-024
48. 081-071-007
49. 081-071-006
50. 081-071-016

Appendix B – Sensitive Species Scoping List

Appendix B: Sensitive Species Scoping List

Combined list of California Department of Fish and Wildlife California Natural Diversity Data Base, California Native Plant Society Inventory, and U.S. Fish and Wildlife Service Scoping for Myers Flat. MFMWS, Myers Flat, CA

Scientific Name	Common Name	Taxon	FedList	CalList	GRank	SRank	Rare Plant Rank (CRPR)	Other Status	Habitats	General Habitat	Micro Habitat	Liklihood of Occurrence
Ascaphus truei	Pacific Tailed Frog	Amphibians	None	None	G4	S3S4		CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Aquatic | Klamath/North coast flowing waters | Lower montane coniferous forest | North coast coniferous forest | Redwood | Riparian forest	Occurs in montane hardwood-conifer, redwood, Douglas-fir & ponderosa pine habitats.	Restricted to perennial montane streams. Tadpoles require water below 15 degrees C.	**Low potential.** Somewhat suitable coniferous forest and rocky stream/creekbed habitat is adjacent to project site, although not montane. No habitat for this species exists within the project area.
Rana boylii	Foothill Yellow-legged Frog	Amphibians	None	Candidate Threatened	G3	S3		BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_NT-Near Threatened | USFS_S-Sensitive	Aquatic | Chaparral | Cismontane woodland | Coastal scrub | Klamath/North coast flowing waters | Lower montane coniferous forest | Meadow & seep | Riparian forest | Riparian woodland | Sacramento/San Joaquin flowing waters	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats.	Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	**High potential.** The species has been documented within the S.F. Eel, however the project site is unsuitable for the species as it is a few hundred feet away from flowing water.
Rhyacotriton variegatus	Southern Torrent Salamander	Amphibians	None	None	G3G4	S2S3		CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFS_S-Sensitive	Lower montane coniferous forest | Oldgrowth | Redwood | Riparian forest	Coastal redwood, Douglas-fir, mixed conifer, montane riparian, and montane hardwood-conifer habitats. Old growth forest.	Cold, well-shaded, permanent streams and seepages, or within splash zone or on moss-covered rocks within trickling water.	**Low potential.** The project site is developed and does not contain old growth habitat or aquatic or riparian habitat.
Taricha rivularis	Red-bellied Newt	Amphibians	None	None	G4	S2		CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern	Broadleaved upland forest | North coast coniferous forest | Redwood | Riparian forest | Riparian woodland	Coastal drainages from Humboldt County south to Sonoma County, inland to Lake County. Isolated population of uncertain origin in Santa Clara County.	Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean, rocky substrate.	**Low potential.** Project site does not contain suitable habitat. In addition, the project is is outside of the species range.
Rana aurora	Northern Red-legged Frog	Amphibians	None	None	G4	S3		CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFS_S-Sensitive	Klamath/North coast flowing waters | Riparian forest | Riparian woodland	Humid forests, woodlands, grasslands, and streamsides in northwestern California, usually near dense riparian cover.	Generally near permanent water, but can be found far from water, in damp woods and meadows, during non-breeding season.	**Moderate potential**. No lower montane coniferous forest, rocky creek/stream, or riparian habitat on the project site, however suitable habitat adjacent to project site.
Brachyramphus marmoratus	Marbled Murrelet	Birds	Threatened	Endangered	G3G4	S1	CDF_S-Sensitive | IUCN_EN-Endangered | NABCI_RWL-Red Watch List	Lower montane coniferous forest | Oldgrowth | Redwood	Feeds near-shore; nests inland along coast from Eureka to Oregon border & from Half Moon Bay to Santa Cruz.	Nests in old-growth redwood-dominated forests, up to six miles inland, often in Douglas-fir.		**Moderate potential**. Marbled Murrelets may fly over the project site, and utilize nesting habitat in the State Park land across the S.F Eel River outside of the project site.
Charadrius nivosus nivosus	Western Snowy Plover	Birds	Threatened	None	G3T3	S2S3		CDFW_SSC-Species of Special Concern | NABCI_RWL-Red Watch List | USFWS_BCC-Birds of Conservation Concern	Great Basin standing waters | Sand shore | Wetland	Sandy beaches, salt pond levees & shores of large alkali lakes.	Needs sandy, gravelly or friable soils for nesting.	**Low potential**. There is no foraging or nesting habitat present for this species at the project site. In addition, there are no know records of the species in the vicinity of the project area.
Accipiter cooperii	Cooper's Hawk	Birds	None	None	G5	S4		CDFW_WL-Watch List | IUCN_LC-Least Concern	Cismontane woodland | Riparian forest | Riparian woodland | Upper montane coniferous forest	Woodland, chiefly of open, interrupted or marginal type.	Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	**Low Potential.** Project site contains mostly coniferious vegetation, but limited deciduous vegetation exists onsite and near project site.
Accipiter striatus	Sharp-shinned Hawk	Birds	None	None	G5	S4		CDFW_WL-Watch List | IUCN_LC-Least Concern	Cismontane woodland | Lower montane coniferous forest | Riparian forest | Riparian woodland	Ponderosa pine, black oak, riparian deciduous, mixed conifer, and Jeffrey pine habitats. Prefers riparian areas. The species could forage and roost in trees adjacent to the project area.	North-facing slopes with plucking perches are critical requirements. Nests usually within 275 ft of water.	**Moderate Potential.** Project site contains mostly coniferious vegetation, but limited deciduous vegetation exists onsite and near project site.
Aquila chrysaetos	Golden Eagle	Birds	None	None	G5	S3		BLM_S-Sensitive | CDF_S-Sensitive | CDFW_FP-Fully Protected | CDFW_WL-Watch List | IUCN_LC-Least Concern | USFWS_BCC-Birds of Conservation Concern	Broadleaved upland forest | Cismontane woodland | Coastal prairie | Great Basin grassland | Great Basin scrub | Lower montane coniferous forest | Pinon & juniper woodlands | Upper montane coniferous forest | Valley & foothill grassland	Rolling foothills, mountain areas, sage-juniper flats, and desert.	Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**Low potential.** Project site does not contain rolling foothills, mountain areas, sage-juniper flats or desert. However, the species could fly over the project site on the way to more suitable habitat in inland foothills.
Empidonax traillii brewsteri	Little Willow Flycatcher	Birds	None	Endangered	G5T3T4	S1S2		USFWS_BCC-Birds of Conservation Concern	Meadow & seep | Riparian woodland	Mountain meadows and riparian habitats in the Sierra Nevada and Cascades.	Nests near the edges of vegetation clumps and near streams.	**Moderate potential.** Project site does not contain riparian habitat, however there is riparian habitat adjacent to the project site considered to be high quality habitat for the species by the CDFW. In addition, there are records of the species along the SF Eel, just south of the project area (near Miranda).

Scientific Name	Common Name	Taxon	FedList	CalList	GRank	SRank	Rare Plant Rank (CRPR)	Other Status	Habitats	General Habitat	Micro Habitat	Liklihood of Occurrence
Falco peregrinus anatum	American Peregrine Falcon	Birds	Delisted	Delisted	G4T4	S3S4		CDF_S-Sensitive | CDFW_FP-Fully Protected | USFWS_BCC-Birds of Conservation Concern		Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures.	Nest consists of a scrape or a depression or ledge in an open site.	**Moderate potential.** Area outside of project site contains suitable habitat. Species may fly over project site on the way for foraging or nesting locations.
Coccyzus americanus occidentalis	Western Yellow-billed Cuckoo	Birds	Threatened	Endangered	G5T2T3	S1		BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive USFWS_BCC-Birds of Conservation Concern	Riparian forest	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	Nests in riparian jungles of willow, often mixed with cottonwoods, w/ lower story of blackberry, nettles, or wild grape.	**Low potential.** Project site does not contain extensive cottonwood/willow riparian habitat. No records of these species occur in or near the project area (closest records from the mouth of the Eel River).
Pandion haliaetus	Osprey	Birds	None	None	G5	S4		CDF_S-Sensitive | CDFW_WL-Watch List | IUCN_LC-Least Concern	Riparian forest	Ocean shore, bays, freshwater lakes, and larger streams.	Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	**Moderate potential.** It is possible that the species may fly over the project site, and breed or forage in habitat adjacent to the project site.
Riparia riparia	Bank Swallow	Birds	None	Threatened	G5	S2		BLM_S-Sensitive | IUCN_LC-Least Concern	Riparian scrub | Riparian woodland	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert.	Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	**Low potential**. Project area may serve as a foraging site, but no nesting habitat present.
Strix occidentalis caurina	Northern Spotted Owl	Birds	Threatened	Threatened	G3T3	S2S3		CDF_S-Sensitive |CDFW_SSC-Species of Special Concern |IUCN_NT-Near Threatened |NABCI_RWL-Yellow Watch List	Oldgrowth to mixed conifer forests with a multi-species canopy, moderate to high canopy closure, large conifers with decadence features such broken tops, cavities, or snags	Late seccessional redwood, Douglas-fir forests in California, Oregon, and Washington	Nests in large, continuous patches of old growth redwood or Douglas-fir dominated forests	**Moderate potential**. Species may fly over project site as no suitable nesting or foraging habitat (complex coniferous forest) exists within the project site, however suitable habitat is adjacent to the project site (records of the species state to appear roughly 1 mile out from the project area).
Astragalus agnicidus	Humboldt County milk-vetch	Dicots	None	Endangered	G2	S2	1B.1	BLM_S-Sensitive | SB_BerrySB-Berry Seed Bank | SB_RSABG-Rancho Santa Ana Botanic Garden	Broadleaved upland forest | North coast coniferous forest	Broadleafed upland forest, north coast coniferous forest.	Disturbed openings in partially timbered forest lands; also along ridgelines; south aspects. 115-670 m.	**Low Potential.** Project elevation is mostly too low. Disturbed areas are limited to roadsides. No recenly disturbed openings in forest.
Gilia capitata ssp. pacifica	Pacific gilia	Dicots	None	None	G5T3	S2	1B.2		Chaparral | Coastal bluff scrub | Coastal prairie | Valley & foothill grassland	Coastal bluff scrub, chaparral, coastal prairie, valley and foothill grassland.	5-1345 m.	**Low potential.** Project site does not contain coastal bluff scrub, or chaparral. Disturbed roadsides dominanted by grasses are present.
Howellia aquatilis	water howellia	Dicots	Threatened	None	G3	S2	2B.2		Aquatic | Freshwater marsh | Marsh & swamp | Wetland	Freshwater marshes and swamps.	In clear ponds with other aquatics and surrounded by ponderosa pine forest and sometimes riparian associates. 1080-1375 m.	**No potential.** Project area does not include freshwater wetlands, or ponds.
Kopsiopsis hookeri	small groundcone	Dicots	None	None	G4?	S1S2	2B.3		North coast coniferous forest	North coast coniferous forest.	Open woods, shrubby places, generally on Gaultheria shallon. 120-1435 m.	**No potential.** Project area does not include open woods or shrubby areas.
Montia howellii	Howell's montia	Dicots	None	None	G3G4	S2	2B.2		Meadow & seep | North coast coniferous forest | Vernal pool | Wetland	Meadows and seeps, north coast coniferous forest, vernal pools.	Vernally wet sites; often on compacted soil. 10-1215 m.	**Low potential.** Project area does not contain meadows, seeps, or vernal pools.
Packera bolanderi var. bolanderi	seacoast ragwort	Dicots	None	None	G4T4	S2S3	2B.2		Coastal scrub | North coast coniferous forest	Coastal scrub, north coast coniferous forest.	Sometimes along roadsides. 30-915 m.	**Low potential.** Project area does not contain coastal scrub or coniferous forest. Roadside habitat occurs but is dominated by grasses.
Sidalcea malviflora ssp. patula	Siskiyou checkerbloom	Dicots	None	None	G5T2	S2	1B.2	BLM_S-Sensitive	Coastal bluff scrub | Coastal prairie | North coast coniferous forest	Coastal bluff scrub, coastal prairie, north coast coniferous forest.	Open coastal forest; roadcuts. 5-1255 m.	**Low potential.** Project area is primarily disturbed roadsides and does not contain coastal bluff habitat.
Tracyina rostrata	beaked tracyina	Dicots	None	None	G2	S2	1B.2	USFS_S-Sensitive	Chaparral | Cismontane woodland | Valley & foothill grassland	Cismontane woodland, valley and foothill grassland, chaparral.	Open grassy meadows usually within oak woodland and grassland habitats. 150-795 m.	**Low potential.** Project includes limited grassy meadows dominated by ruderal species.
Oncorhynchus kisutch pop. 2	coho salmon - southern Oregon / northern California ESU	Fish	Threatened	Threatened	G4T2Q	S2?		AFS_TH-Threatened	Aquatic | Klamath/North coast flowing waters | Sacramento/San Joaquin flowing waters	Federal listing refers to populations between Cape Blanco, Oregon and Punta Gorda, Humboldt County, California.	State listing refers to populations between the Oregon border and Punta Gorda, California.	**No potential.** No rivers, streams, or bay habitat fall within the project area. However, the species is present in the SF Eel river, adjacent to the project site.
Oncorhynchus tshawytscha pop. 17	Chinook Salmon - California coastal ESU	Fish	Threatened	None	G5	S1		AFS_TH-Threatened	Aquatic | Sacramento/San Joaquin flowing waters	Federal listing refers to wild spawned, coastal, spring & fall runs between Redwood Cr, Humboldt Co & Russian River, Sonoma Co		**No potential.** No rivers, streams, or bay habitat fall within the project area. However, the species is present in the SF Eel river, adjacent to the project site.
Oncorhynchus mykiss irideus pop. 16	steelhead - northern California DPS	Fish	Threatened	None	G5T2T3Q	S2S3		AFS_TH-Threatened	Aquatic | Sacramento/San Joaquin flowing waters	Coastal basins from Redwood Creek south to the Gualala River, inclusive. Does not include summer-run steelhead.		**No potential.** No rivers, streams, or bay habitat fall within the project area. However, the species is present in the SF Eel river, adjacent to the project site.

Scientific Name	Common Name	Taxon	FedList	CalList	GRank	SRank	Rare Plant Rank (CRPR)	Other Status	Habitats	General Habitat	Micro Habitat	Liklihood of Occurrence
Acipenser medirostris	Green Sturgeon	Fish	Threatened	None	G3	S1S2		AFS_VU-Vulnerable | CDFW_SSC-Species of Special Concern | IUCN_NT-Near Threatened | NMFS_SC-Species of Concern	Aquatic | Klamath/North coast flowing waters | Sacramento/San Joaquin flowing waters	These are the most marine species of sturgeon. Abundance increases northward of Point Conception. Spawns in the Sacramento, Klamath, & Trinity Rivers.	Spawns at temps between 8-14 C. Preferred spawning substrate is large cobble, but can range from clean sand to bedrock.	**No potential.** No rivers, streams, or bay habitat fall within the project area. However, the species is present in the SF Eel river, adjacent to the project site.
Entosphenus tridentatus	Pacific Lamprey	Fish	None	None	G4	S4		AFS_VU-Vulnerable | BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | USFS_S-Sensitive	Aquatic | Klamath/North coast flowing waters | Sacramento/San Joaquin flowing waters | South coast flowing waters	Found in Pacific Coast streams north of San Luis Obispo County, however regular runs in Santa Clara River. Size of runs is declining.	Swift-current gravel-bottomed areas for spawning with water temps between 12-18 C. Ammocoetes need soft sand or mud.	**No potential.** No rivers, streams, or bay habitat fall within the project area. However, the species is present in the SF Eel river, adjacent to the project site.
Upland Douglas Fir Forest	Upland Douglas Fir Forest	Forest	None	None	G4	S3.1			North coast coniferous forest			None present within the project site.
North Central Coast Summer Steelhead Stream	North Central Coast Summer Steelhead Stream	Inland Waters	None	None	GNR	SNR						None present within the project site.
Atractelmis wawona	Wawona Riffle Beetle	Insects	None	None	G1G3	S1S2			Aquatic	Aquatic; found in riffles of rapid, small to medium clear mountain streams; 2000-5000 ft elev.	Strong preferce for inhabiting submerged aquatic mosses	**No potential.** No aquatic habitat present at project site.
Bombus caliginosus	Obscure Bumble Bee	Insects	None	None	G4?	S1S2		IUCN_VU-Vulnerable		Coastal areas from Santa Barabara county to north to Washington state.	Food plant genera include Baccharis, Cirsium, Lupinus, Lotus, Grindelia and Phacelia.	**Low potential**. The project site falls within the species current range (according to ICUN Redlist). However, vegetation at the site does not include dune nectar plants that the species requires for foraging habitat.
Bombus occidentalis	Western Bumble Bee	Insects	None	None	G2G3	S1		USFS_S-Sensitive | XERCES_IM-Imperiled		Once common & widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.		**Low potential.** Although the project site falls within the species pre-2002 range (according to ICUN Redlist), the range has contracted significantly in the last decade and now only includes the intermountain west and cascade regions of the US.
Arborimus pomo	Sonoma Tree Vole	Mammals	None	None	G3	S3		CDFW_SSC-Species of Special Concern | IUCN_NT-Near Threatened	North coast coniferous forest | Oldgrowth | Redwood	North coast fog belt from Oregon border to Somona County. In Douglas-fir, redwood & montane hardwood-conifer forests.	Feeds almost exclusively on Douglas-fir needles. Will occasionaly take needles of grand fir, hemlock or spruce.	**Low potential.** Project site is outside of the fog belt and no habitat for the species is present at the project site.
Corynorhinus townsendii	Townsend's Big-eared Bat	Mammals	None	None	G3G4	S2		BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | USFS_S-Sensitive | WBWG_H-High Priority	Broadleaved upland forest | Chaparral | Chenopod scrub | Great Basin grassland | Great Basin scrub | Joshua tree woodland | Lower montane coniferous forest | Meadow & seep | Mojavean desert scrub | Riparian forest | Riparian woodland | Sonoran desert scrub | Sonoran thorn woodland | Upper montane coniferous forest | Valley & foothill grassland	Throughout California in a wide variety of habitats. Most common in mesic sites.	Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	**Low potential.** Project site is highly disturbed with residential development.
Erethizon dorsatum	North American Porcupine	Mammals	None	None	G5	S3		IUCN_LC-Least Concern	Broadleaved upland forest | Cismontane woodland | Closed-cone coniferous forest | Lower montane coniferous forest | North coast coniferous forest | Upper montane coniferous forest	Forested habitats in the Sierra Nevada, Cascade, and Coast ranges, with scattered observations from forested areas in the Transverse Ranges.	Wide variety of coniferous and mixed woodland habitat.	**Moderate potential**. Project site is developed and highly degraded and would be considered sub-par for the species. Habitat adjacent to project site is suitable.
Lasiurus blossevillii	Western Red Bat	Mammals	None	None	G5	S3		CDFW_SSC-Species of Special Concern | IUCN_LC-Least Concern | WBWG_H-High Priority	Cismontane woodland | Lower montane coniferous forest | Riparian forest | Riparian woodland	Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests.	Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	**Moderate potential.** No suitable habitat on project site, however some suitable habitat adjacent to project site.
Martes caurina humboldtensis	Humboldt Marten	Mammals	None	Endangered	G5T1	S1		CDFW_SSC-Species of Special Concern | USFS_S-Sensitive	North coast coniferous forest | Oldgrowth | Redwood	Occurs only in the coastal redwood zone from the Oregon border south to Sonoma County.	Associated with late-successional coniferous forests, prefer forests with low, overhead cover.	**Moderate potential.** Contiguous forest with large trees not present on project site, however suitable habitat adjacent to Project site along the S.F. Eel River and in State Park land. However, no records of this species from the project area (only found in southern Del Norte and Northern Humboldt counties).
Myotis volans	Long-legged Myotis	Mammals	None	None	G5	S3		IUCN_LC-Least Concern | WBWG_H-High Priority	Upper montane coniferous forest	Most common in woodland and forest habitats above 4000 ft. Trees are important day roosts; caves and mines are night roosts.	Nursery colonies usually under bark or in hollow trees, but occasionally in crevices or buildings.	**Low potential.** Snags, tree cavities, loose bark in the study area may be utilized, however project site far lower than 4,000 feet.

Scientific Name	Common Name	Taxon	FedList	CalList	GRank	SRank	Rare Plant Rank (CRPR)	Other Status	Habitats	General Habitat	Micro Habitat	Liklihood of Occurrence
Myotis yumanensis	Yuma Myotis	Mammals	None	None	G5	S4		BLM_S-Sensitive | IUCN_LC-Least Concern | WBWG_LM-Low-Medium Priority	Lower montane coniferous forest | Riparian forest | Riparian woodland | Upper montane coniferous forest	Optimal habitats are open forests and woodlands with sources of water over which to feed.	Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	**Moderate potential.** No suitable habitat on project site, however some suitable habitat adjacent to project site.
Pekania pennanti	Fisher - West Coast DPS	Mammals	None	Candidate Threatened	G5T2T3Q	S2S3		BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | USFS_S-Sensitive	North coast coniferous forest | Oldgrowth | Riparian forest	Intermediate to large-tree stages of coniferous forests and deciduous-riparian areas with high percent canopy closure.	Uses cavities, snags, logs and rocky areas for cover and denning. Needs large areas of mature, dense forest.	**Moderate potential.** Contiguous forest with large trees not present on project site, however suitable habitat adjacent to Project site along the S.F. Eel River and in State Park land.
Noyo intersessa	Ten Mile Shoulderband	Mollusks	None	None	G2	S2			Coastal dunes | Coastal scrub | Redwood | Riparian forest	Found in coastal dunes, coastal scrub, and riparian redwood forest habitats.		**No potential.** Project site does not contain coastal dunes, scrub and riparian redwood forest habitats. Species may be found adjacent to project site.
Carex arcta	northern clustered sedge	Monocots	None	None	G5	S1	2B.2		Bog & fen | North coast coniferous forest | Wetland	Bogs and fens, north coast coniferous forest.	Mesic sites. 60-1405 m.	**No potential.** Project area does not contain freshwater forested wetland, however riparian habitat abuts the project site.
Erythronium oregonum	giant fawn lily	Monocots	None	None	G4G5	S2	2B.2		Cismontane woodland | Meadow & seep | Ultramafic	Cismontane woodland, meadows and seeps.	Openings. Sometimes on serpentine; rocky sites. 300-1435 m.	**No potential.** Project area does not contain mafic, serpentine, rocky or woodland areas.
Erythronium revolutum	coast fawn lily	Monocots	None	None	G4G5	S3	2B.2		Bog & fen | Broadleaved upland forest | North coast coniferous forest | Wetland	Bogs and fens, broadleafed upland forest, north coast coniferous forest.	Mesic sites; streambanks. 60-1405 m.	**No potential.** Project area does not contain bogs, fens, streambanks or mesic sites.
Piperia candida	white-flowered rein orchid	Monocots	None	None	G3	S3	1B.2	BLM_S-Sensitive	Broadleaved upland forest | Lower montane coniferous forest | North coast coniferous forest | Ultramafic	North Coast coniferous forest, lower montane coniferous forest, broadleafed upland forest.	Sometimes on serpentine. Forest duff, mossy banks, rock outcrops, and muskeg. 20-1615 m.	**No potential.** Project area does not contain forest habitat.
Emys marmorata	Western Pond Turtle	Reptiles	None	None	G3G4	S3		BLM_S-Sensitive | CDFW_SSC-Species of Special Concern | IUCN_VU-Vulnerable | USFS_S-Sensitive	Aquatic | Artificial flowing waters | Klamath/North coast flowing waters | Klamath/North coast standing waters | Marsh & swamp | Sacramento/San Joaquin flowing waters |	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation.	Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**Moderate potential.** Project site does not include aquatic habitat, however upland habitat is present.

No Potential: Habitat on and adjacent to the site is clearly unsuitable for the species requirements (cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).

Low Potential. Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.

Moderate Potential. Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

High Potential. All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

Appendix C – Mitigation Monitoring and Reporting Plan

Mitigation Monitoring and Reporting Program
Myers Flat Mutual Water System Distribution System Improvement Project

Impact	Mitigation Measure	Implementation Responsibility	Monitoring/ Reporting Responsibility	Timing
Biological Resources				
BIO-1 Conservation Measures to Protect Amphibians	The following avoidance and protection measures for special-status amphibians shall be implemented: 1. If work is required that would impact known or potential breeding habitat for the Northern Red-legged Frog or Foothill Yellow-legged Frog (state species of special concern, and CESA and ESA candidate and under review species, respectively), or other amphibians listed above, then a qualified biologist would conduct preconstruction surveys during the breeding season (January – March) and relocate egg masses to suitable nearby habitat. The project work window spans from June 1 through Dec 31st in 2019 and 2020, and therefore no impact to Northern Red-legged Frogs or Foothill Yellow-legged Frogs during their breeding season is expected to occur. 2. If any adult or sub-adult Northern Red-legged Frogs or Foothill Yellow-legged Frogs are encountered during construction, they would, subject to CDFW approval, be relocated to separate and suitable habitat by a qualified biologist. 3. Prior to construction, a qualified biologist would conduct training sessions to familiarize all construction personnel and supervisors with the following: identification of Northern Red-legged Frogs and Foothill Yellow-legged Frogs, their habitat, general provisions and protections afforded to these species, measures implemented to protect the species, and a review of the project boundaries. This training would also be provided to construction supervisors and staff within 30 days of the arrival of any new worker during the course of implementation of the project. 4. In order to avoid potential adverse impacts to Foothill Yellow-Legged Frogs, or the other amphibians listed above, and riparian and aquatic habitat, project activities will be confined to the opposite/east side of the road as much as feasibly possible 150 feet north and south of the riparian corridor in the western central portion of Boy Scout Camp Road (reference Figure 2, Project Components). Standard BMPs and erosion control measures, including fiber rolls, would be implemented during construction to minimize possible discharge of sediment into aquatic habitats including but not limited to the biologically sensitive area identified between APN 081-021-001 and 081-051-003 along Boy Scout Camp Road (see Figure 2).	MFMWS and Contractor	MFMWS	Prior to construction (surveys) and during construction

Impact	Mitigation Measure	Implementation Responsibility	Monitoring/ Reporting Responsibility	Timing
BIO-2 Conservation Measures to Protect Nesting and Migratory Bird and Raptor Species	The following avoidance and protection measures for nesting and migratory bird and raptor species shall be implemented: 1. Clearing of shrubs or other vegetation, if necessary for construction, shall be conducted if possible during the fall and/or winter months from August 16 to March 14th, outside of the avian breeding season for Northern California (March 15-August 15). If vegetation removal or ground disturbance cannot be confined to work during the non-breeding season, then MFMWS shall have a qualified biologist 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 the presence of raptors and special-status bird species. The biologist shall conduct a minimum of 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 biologist shall conduct a supplemental avian pre-construction survey before project work is reinitiated. 2. If active nests are detected within the construction footprint or within 500 feet of construction activities, the biologist shall flag a buffer around each nest. Construction activities shall avoid nest sites until the biologist 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 footprint, buffers will be implemented as needed. In general, the buffer size for common species would be determined on a case-by-case basis in consultation with the CDFW (California Department of Fish and Wildlife). The buffer size for sensitive species would be 300 feet and the buffer size for raptors would be 500 feet, if deemed appropriate in coordination with the CDFW. 3. 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. The survey results will be reported to the CDFW prior to the commencement of construction activities. 4. Garbage will be placed in secure containers or removed from the site at the end of each work day to avoid attracting ravens, jays, or other potential nest predators of Marbled Murrelets. 5. If construction has to occur during the avian breeding season within 300 feet of the biologically sensitive area located on the western central portion of Boy Scout Camp Road between APNs: 081-021-001 and 081-051-003, protocol level surveys for Little Willow Flycatcher will be implemented. If active nests are detected within the construction footprint or within 300 feet of construction activities, the biologist shall have locations flagged that are supporting breeding, and will not begin ground disturbing work or vegetation removal inside the buffers until after the nests have fledged. Construction activities shall avoid nest sites until the biologist determines that the young have fledged or nesting activity has ceased.	MFMWS	MFMWS/ CDFW	Prior to construction (depending on project timing), and potentially during construction
BIO-3 Conservation Measures to Protect Salmonids, Sturgeon and Lamprey	The following avoidance and minimization measures for salmonids, sturgeon and lamprey shall be implemented: 1. To avoid sediment delivery to a river where salmonids, sturgeon or lamprey could be present, work within 300 feet of the river would terminate by October 15 (or at onset of the rainy season) unless extended in writing by NMFS. 2. Work within 300 feet of the river would cease within 24 hours of significant forecast rainfall (<0.5 inches) 3. Surface water shall be directed away from slopes and new cut slopes. 4. Stockpiled material will be covered or watered to eliminate excessive dust, as necessary.	Contractor	MFMWS	During construction

Impact	Mitigation Measure	Implementation Responsibility	Monitoring/ Reporting Responsibility	Timing
	5. Fiber rolls or similar products will be utilized in appropriate locations to reduce sediment runoff from disturbed soils in receiving waters, as necessary. 6. A concrete washout area within the staging area will be designated to clean concrete trucks and tools, as necessary.			
CR-1 Identify and Avoid or Minimize Impacts to Unknown Historical and/or Archaeological Resources	MFMWS shall ensure that if concentrations of prehistoric or historic-period materials are encountered as a result of ground-disturbing activity attributable to the project, all work in the immediate vicinity shall halt until a qualified archaeologist can evaluate the finds and make recommendations. The recommendations of the archaeologist shall be implemented. Prehistoric materials could include obsidian and chert debitage or formal tools, grinding implements, (e.g., pestles, handstones, bowl mortars, slabs), locally darkened midden, deposits of shell, faunal remains, and human burials. Historic materials could include ceramics/pottery, glass, metal, can and bottle dumps, cut bone, barbed wire fences, building pads, structures, and trails/roads. If such materials are encountered during construction, MFMWS shall retain a qualified archaeologist who shall be present during subsequent surface and subsurface activities in the vicinity of the sensitive materials as determined necessary by the archaeologist. With respect to these areas of sensitive materials: • Ground disturbance shall be monitored by a qualified archaeologist with the authority to temporarily halt work and redirect equipment if cultural materials are discovered. • If cultural materials are discovered, the archaeologist shall assess the discovery to determine if it constitutes either a unique archaeological resource or a historical resource for purposes of CEQA (CCR Title 14 §15064.5[a]). • If the archaeologist determines that the materials do not constitute either a unique archaeological resource or a historical resource, their presence shall be noted but need not be considered further (CCR Title 14 §15064.5[c] [3]). • If the archaeologist determines: (a) that the materials do constitute a unique archaeological resource or historical resource; and, (b) they are subject to substantial adverse change as defined in CCR Title 14 §15064.5[b], the archaeologist shall provide recommendations to MFMWS for appropriate treatment which, among other options, may include preservation in place or archaeological data recovery. Preservation in place is preferred, if it is feasible.	MFMWS	MFMWS	During construction
CR-2 Evaluation and Treatment of Paleontological Resources	If paleontological resources (e.g., vertebrate bones, teeth, or abundant and well preserved invertebrates or plants), are encountered during construction, the MFMWS shall ensure work in the immediate vicinity shall be diverted away from the find (or stopped altogether if appropriate) until a professional paleontologist assesses and salvages the find, as appropriate.	MFMWS	MFMWS	During construction

Impact	Mitigation Measure	Implementation Responsibility	Monitoring/ Reporting Responsibility	Timing
HYD-1 BMPs to be Implemented During Construction	The following avoidance and protection measures for Waters of the United States and Waters of the State shall be implemented: 1. At all times during construction activities, the contractor shall minimize the area disturbed by excavation, grading, or earth moving to prevent the release of excessive fugitive dust. During periods of high winds (i.e. wind speed sufficient that fugitive dust leaves the site) contractor shall cover or treat areas of exposed soil and active portions of the construction site to prevent fugitive dust. 2. No construction materials, equipment, debris, or waste shall be placed or stored where it may be subject to wind, or rain erosion and dispersion. Material handling on and offsite shall be required to comply with California Vehicle Code Section 23114 with regard to covering loads to prevent materials spills onto public roads. 3. All construction equipment shall be equipped and maintained to meet applicable EPA and CARB emission requirements for the duration of the construction activities. 4. Throughout construction, contractor shall maintain adjacent paved areas free of visible soil, sand or other debris. 5. If stockpiled on or offsite, or if rain is expected, soil and aggregate materials shall be covered with secured plastic sheeting and runoff shall be diverted around them. 6. Drainage courses, creeks, or catch basins shall be protected with straw bales, silt fences or fiber rolls, and/or straw wattles. 7. Storm drain inlets from sediment-laden runoff shall be protected with sand bag barriers, filter fabric fences, straw wattles, block and gravel filters, and/or excavated drop inlet sediment traps. 8. Vehicle and equipment parking and vehicle maintenance shall be conducted in designated upland areas away from creeks or storm drain inlets. 9. Major maintenance, repair, and washing of vehicles and other equipment shall be conducted offsite or in a designated and controlled area. 10. Construction debris, plant and organic material, trash, and hazardous materials shall be collected and properly disposed. 11. See also Environmental Protection Action 3 – Erosion Control.	Contractor	MFMWS	During construction
NOI-1 Noise Reduction Actions	During project construction, the following actions will be incorporated into the project to reduce daytime noise impacts to the maximum extent feasible: 1. A preconstruction meeting/conference call will be held among the MFMWS, construction manager and the general contractor to confirm that the following noise reduction practices are to be implemented in the appropriate phase of construction. 2. Hours of construction will be limited to between 7:00 AM and 6:00 PM, Monday through Friday, and 9:00 AM and 5:00 PM on Saturdays. No construction will be allowed on Sundays and holidays, except in an emergency. Specifications/plans would note these hours of construction. 3. Semi-stationary equipment (e.g., generators, compressors, etc.) will be located as far as possible from residences along the water transmission line or shielded if feasible. 4. The quietest available equipment and electrically-powered equipment will be used, rather than internal combustion engines where feasible. 5. Equipment and on-site trucks used for project construction will be equipped with properly functioning noise control devices such as mufflers, shields, and shrouds. All construction equipment will be inspected at periodic intervals to ensure proper maintenance and resulting lower noise levels. 6. Impact tools (e.g., jack hammers, pavement breakers, rock drills) used for project construction will be hydraulically or electrically powered wherever possible to avoid noise associated with compressed-air	MFMWS	MFMWS	During construction

Impact	Mitigation Measure	Implementation Responsibility	Monitoring/ Reporting Responsibility	Timing
	exhaust from pneumatically powered tools. 7. Construction of the project would occur during daylight hours only, and operation of the project would not require lighting to be installed. In addition, no new lighting is proposed. As a result, there would be no new source of substantial light or glare. 8. Prior to construction, a qualified biologist would conduct environmental awareness training sessions to familiarize all construction personnel and supervisors with sensitive resources present at or near the project site. This training would also be provided to any new worker during the course of implementation of the project.			
TCR-1 Protect Tribal Cultural Resources during Construction Activities	If potential tribal cultural resources are uncovered, the contractor shall halt work, and workers shall avoid altering the materials and their context. Project personnel shall not collect cultural materials. MFMWS shall notify the Round Valley Reservation, Bear River Band of Rohnerville Rancheria, the InterTribal Sinkyone Wilderness Council, and the Eel River Nation of Sovereign Wailaki. MFMWS, in coordination with the tribes above, shall determine if the resource qualifies as a tribal cultural resource under CEQA. If it does, then all work must remain stopped in the immediate vicinity to allow evaluation of any materials. MFMWS shall ensure that qualified resources are avoided or protected in place, in accordance with the requests of the tribes above, to the extent feasible. Work may proceed on other parts of the project while mitigation for tribal cultural resources is being carried out.	Contractor	MFMWS	During construction
Environmental Protection Action - 1 Implement Air Quality Emission Control Actions during Construction	The project includes the following air quality control actions to reduce construction generated emissions: • All exposed surfaces (e.g., parking areas, staging areas, soil piles, and graded areas) will be watered, as necessary, during windy periods when dust is generated. • All haul trucks transporting soil, sand, or other loose material will maintain at least 1.0 feet of freeboard or cover the load. • Idling times shall be minimized by shutting equipment off when idling for more than five minutes. • All construction equipment will be maintained and properly tuned in accordance with manufacturer‘s specifications.	Contractor	MFMWS	During construction
Environmental Protection Action – 2 Procedures for Encountering Human Remains	If human remains are discovered during project construction, the MFMWS or construction manager/contractor will halt work at the discovery location, within 20 meters (66 feet), and any nearby area reasonably suspected to overlie adjacent to human remains (Public Resources Code, 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 (Public Resources Code, 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 Public Resources Code, Section 5097.98.	Contractor	MFMWS	During construction

Impact	Mitigation Measure	Implementation Responsibility	Monitoring/ Reporting Responsibility	Timing
Environmental Protection Action - 3 Erosion Control	The following erosion control actions would be implemented by the construction contractor to prevent soil erosion and sedimentation during construction. Erosion and sediment control actions would be in effect and maintained by the contractor during construction. • Surface water shall be directed away from slopes and new cut slopes. • Stockpiled material will be covered or watered to eliminate excessive dust, as necessary. • Fiber rolls or silt fencing or similar products will be utilized in appropriate locations to reduce sediment runoff from disturbed soils in receiving waters, as necessary. • A concrete washout area will be designated to clean concrete trucks and tools, as necessary.	Contractor	MFMWS	During construction
Environmental Protection Action - 4 Construction Dewatering Reduction	Excavation and below grade work will be scheduled during summer/fall to coincide with the period of the lowest groundwater levels at the site and the time frame with the least chance for rainfall. If groundwater is encountered, the contractor, in coordination with the MFMWS would evaluate options for dewatering management. If dewatering is necessary, one or more of the following management options would be used by the construction contractor to protect water quality: • Reuse the water on-site for dust control, compaction, or irrigation, as appropriate. • Discharge the water on-site in a grassy or porous area to allow infiltration/evaporation. If discharge to a storm drain (i.e., surface waters) is the only feasible option, the project will comply with SWRCB requirements for construction dewatering. Actions may include characterizing the discharge and receiving waters and developing a Best Management Practices (BMP) Plan including filtering methods, monitoring and reporting requirements, and a description of the pump systems proposed to remove groundwater and maintain a dry work area.	Contractor and MFMWS	MFMWS	During construction

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