NOTICE OF INTENT TO ADOPT A MITIGATED NEGATIVE DECLARATION

PROJECT NAME: **REDWOOD VALLEY WATER INFRASTRUCTURE RETROFIT PROJECT**

Date of Preparation: August 30, 2019

Lead Agency: Redwood Valley County Water District

Project Description: The project replaces water mains in portions of the Redwood Valley County Water District to provide seismic resiliency. Additional new water mains would be installed to intertie with existing and replacement mains to provide water distribution system resiliency. The project includes new meter replacements to facilitate residential fire sprinkler systems as well as flush-out valves to improve distribution system water quality and facilitate future installation of fire hydrants.

Project Location: Redwood Valley, Mendocino County, CA

Findings: Based on the Initial Study dated August 30, 2019, the Redwood Valley County Water District has determined that:

1. This project does not have the potential to degrade the quality of the environment, nor to curtail the diversity of the environment.
2. This project will not have a detrimental effect upon either short-term or long-term environmental goals.
3. This project will not have impacts that are cumulatively considerable.
4. This project will not have environmental impacts that will cause substantial adverse effects on human beings, either directly or indirectly.

Public Review Period: August 30, 2019 to September 30, 2019

Public Review: The Initial Study is available (beginning August 30, 2019) for public review at the Redwood Valley County Water District, 151 Laws Avenue, Ukiah, CA. All documents referenced in the Initial Study are available at the office of Brelje & Race, 475 Aviation Blvd. Suite 120, Santa Rosa. The public is invited to submit written comments regarding the environmental findings and the proposed Mitigated Negative Declaration determination to the Redwood Valley County Water District. Persons commenting are advised to raise all pertinent issues during the public comment period. If action taken by the Redwood Valley County Water District is challenged in court, the legal challenge may be limited to those issues raised by persons during the public comment period.

Where to Submit Comments: Redwood Valley County Water District
PO Box 399
Redwood Valley, CA 95470

Contact Person: Dave Redding, General Manager
dredding@willowcwd.org
707-485-0679

The Mitigated Negative Declaration has been prepared in compliance with the provisions of the California Environmental Quality Act.

MITIGATED NEGATIVE DECLARATION

Project Title: **Redwood Valley Water Infrastructure Retrofit Project**

Date of Preparation: August 30, 2019

Lead Agency: Redwood Valley County Water District

Project Description: The project replaces water mains in portions of the Redwood Valley County Water District to provide seismic resiliency. Additional new water mains would be installed to intertie with existing and replacement mains to provide water distribution system resiliency. The project includes new meter replacements to facilitate residential fire sprinkler systems as well as flush-out valves to improve distribution system water quality and facilitate future installation of fire hydrants.

Project Location: Redwood Valley, Mendocino County, CA

General Plan: AG40, RL160, RR1, RR2, RR5, SR, primarily in roadways or public utility easements

Zoning: AG, RL, RR, SR, primarily in roadways or public utility easements

Findings:

1. With the incorporation of mitigation measures, this project does not have the potential to degrade the quality of the environment, nor to curtail the diversity of the environment.
2. This project will not have a detrimental effect upon either short-term or long-term environmental goals.
3. This project will not have impacts that are cumulatively considerable.
4. This project will not have environmental impacts that will cause substantial adverse effects on human beings, either directly or indirectly.
   - The proposed project could not have a significant effect on the environment and a Negative Declaration will be prepared.
   - Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A Mitigated Negative Declaration will be prepared.

Public Review Period: August 30, 2019 to September 30, 2019

Mitigation Measures: See Initial Study

Where to Submit Comments:
Redwood Valley County Water District
PO Box 399
Redwood Valley, CA 95470

Contact Person:
Dave Redding, General Manager
dredding@willowcwd.org
707-485-0679

Attachment: Initial Study

REDWOOD VALLEY WATER INFRASTRUCTURE RETROFIT PROJECT

Redwood Valley, California

Initial Study

August 2019

Prepared for:
Redwood Valley County Water District

Prepared by:
Brelje & Race Engineers
475 Aviation Blvd., Suite 120
Santa Rosa CA 95403
707/576-1322

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Figures

Appendices

PROJECT DATA

Project Title:	Redwood Valley Water Infrastructure Resiliency Project
Lead Agency:	Redwood Valley County Water District PO Box 399 Redwood Valley, CA 95470
Contact Person:	Dave Redding, General Manager dredding@willowcwd.org 707-485-0679
Project Location:	Redwood Valley, Mendocino County, CA
General Plan Designation:	AG40, RL160, RR1, RR2, RR5, SR, primarily in roadways or public utility easements
Zoning:	AG, RL, RR, SR, primarily in roadways or public utility easements

INTRODUCTION

The purpose of this Initial Study is to provide the Lead Agency, the Redwood Valley County Water District (District), with an assessment of relevant environmental information associated with implementation of the proposed project in order to determine whether a Negative Declaration, Mitigated Negative Declaration, or an Environmental Impact Report (EIR) will be required for the project. This environmental evaluation is intended to fully inform the Lead Agency, other interested agencies, and the public of the proposed project and associated environmental impacts. This Initial Study has been prepared in conformance with the requirements of §15063 of the 2019 California Environmental Quality Act (CEQA) Guidelines.

If the Lead Agency determines that there is no substantial evidence that the project may cause a significant effect on the environment, then a Negative Declaration may be prepared. A Negative Declaration may include conditions of approval to avoid or reduce potential impacts. However, if the Initial Study determines that the project may cause an unavoidable or unknown significant effect on the environment, the Lead Agency must prepare an EIR.

The Initial Study process also enables the Lead Agency to modify a project, mitigating adverse effects before an EIR is prepared, thereby enabling the project to move forward under a Mitigated Negative Declaration. This facilitates the environmental evaluation portion of the project development process and eliminates unnecessary EIRs.

PROJECT SETTING AND BACKGROUND

The District provides potable and irrigation water service to a rural area of approximately 15 square miles in Redwood Valley located northeast of Ukiah. The project area is rural residential in character with small agricultural uses. The Russian River flows through the community from north to south.

The District's service area population was approximately 3,000 people prior to the 2017 Redwood Valley Fire. The current population fell by approximately 15 percent immediately after the Redwood Valley Fire due to the loss of nearly 200 homes in the northerly portion of the service area. The service area population is slowly returning as homes are rebuilt.

The domestic water system was constructed in 1978 and began operating in 1979. By 1996, the domestic water system included approximately 1,092 active and 77 inactive connections. The District is currently under a domestic service connection moratorium resulting in only a slight increase of domestic connections over the last 20 years. The District also provides agricultural water through a separate distribution system that is not a part of this project.

The District's existing facilities include water intakes and pumps at Lake Mendocino, a surge tank, and a transmission main from Lake Mendocino to a holding pond for the untreated water. The domestic water system includes a conventional water treatment plant, six storage tanks, one booster pump station and hydropnuematic tank, and nearly 35 miles of distribution piping. The majority of the distribution system consists of asbestos cement (AC) water mains, installed between the early 1990s and 1983. Piping installed after the early 1990s transitioned to other materials, primarily PVC. AC piping materials are susceptible to failure during a high intensity earthquake event due to ground acceleration and/or ground deformation if not properly installed and restrained, especially the smaller diameter AC piping.

A Water Distribution System Seismic Hazard Analysis of the Redwood Valley domestic water distribution system was conducted utilizing the assessment methodologies set forth in the Seismic Guidelines for Water Pipelines by the American Lifeline Alliance (ALA). The analysis concluded that the water distribution system should be replaced with new piping designed for seismic hazards and that larger, more robust piping should be utilized. While the analysis was conducted assuming the existing piping material was either ductile iron or PVC, the presence of AC piping further supports the analysis' conclusions.

The proposed project's regional location is shown on Figure 1 and the project locations where work will occur are shown on Figure 2.

PROJECT OBJECTIVES/PURPOSE AND NEED

The County of Mendocino has received funding from the Federal Emergency Management Agency (FEMA) for the preparation of documents for a project that will involve the upgrade of approximately three miles of existing distribution system piping and appurtenances and installation of approximately one mile of new distribution system piping and appurtenances within the District. The funds are being provided through FEMA's Hazard Mitigation Grant Program (HMGP). The project's primary goal and objective is the production of "Bid-Ready" Plans, Specifications, and Estimates and preparation of CEQA and NEPA documentation to support an application for construction funds. The project's primary purpose will be to mitigate the distribution system's documented seismic vulnerability and will have the ancillary benefit of improving water quality and meet modern fire flow delivery standards in portions of the localized areas where improvements are proposed. The project will also facilitate (via upgraded water service connections) replacement of housing lost during the Redwood Valley component of the Mendocino Lake Complex Fire.

POLICY SETTING

Development in the project area is governed by the County of Mendocino's General Plan and Zoning Ordinance. The Redwood Valley Municipal Advisory Council (RVMAC), composed of seven community volunteers, was formed in 2016 to work with Redwood Valley residents and other stakeholders to enhance, maintain, and protect the rural nature of the community. The RVMAC is in the process of updating the 2004 Redwood Valley Community Action Plan and has released a public draft of the plan. The plan includes goals and objectives to guide community development and proposed design guidelines consistent with current and desired future character.

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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

NORTH

0 2.5 5 10 Miles

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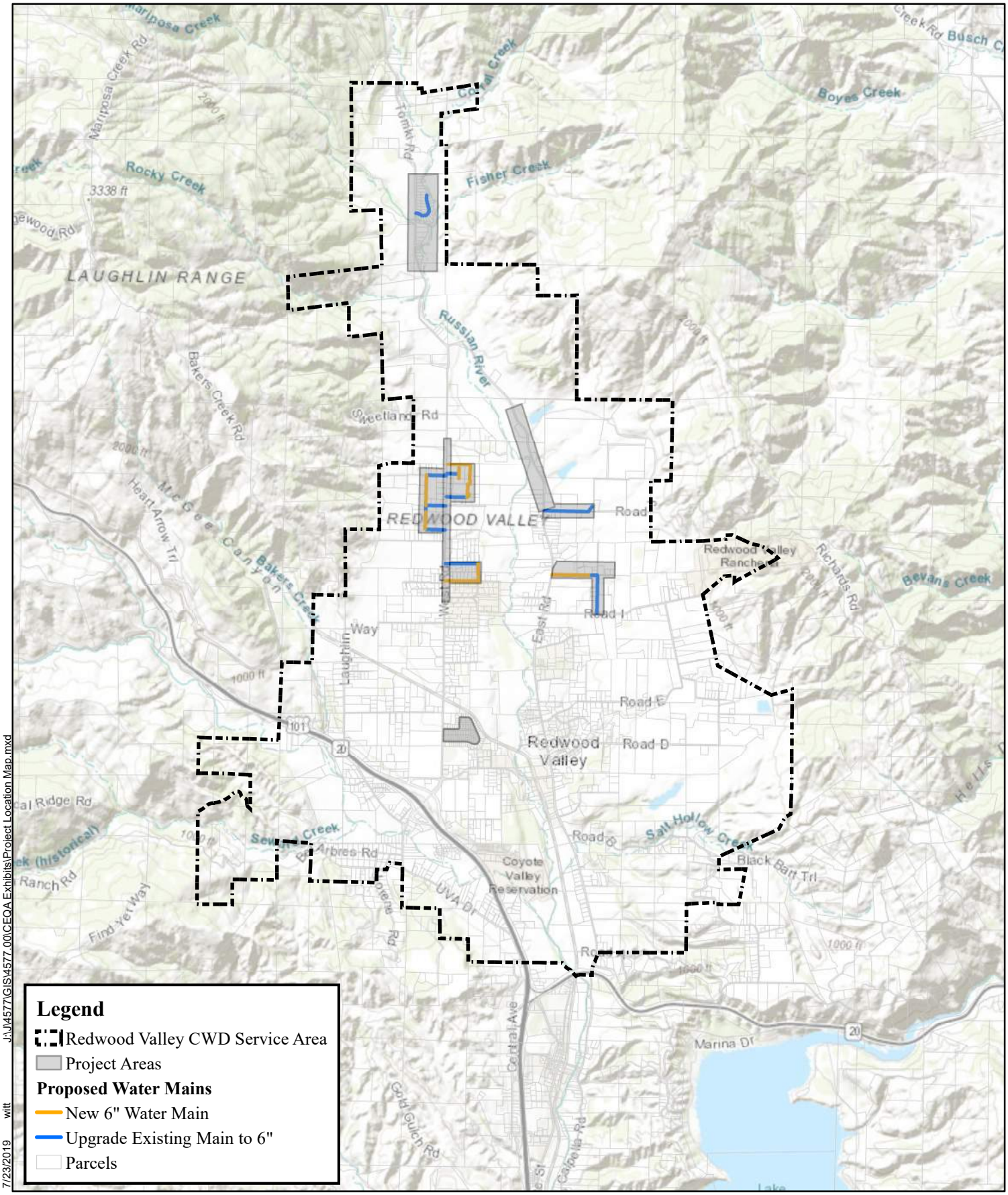
475 Aviation Blvd. Suite 120, Santa Rosa, CA 95403

FIGURE 1

REGIONAL LOCATION

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019



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Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

NORTH

0 0.25 0.5 1 Miles

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FIGURE 2
PROJECT LOCATION

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019

PROJECT DESCRIPTION

The project includes nine areas where distribution system improvements are proposed. The project location is shown on Figure 2 and a project overview is shown on Figure 3. Each area is shown in detail on Figures 4 through 12. In six of the nine locations, improvements will include water main upgrades and/or extensions, creating water main loops, where feasible, to increase system resiliency. In addition to the main retrofits, new water services capable of serving residential fire sprinkler systems and water main flush-outs to improve distribution system water quality will be installed. The flush-outs would also facilitate future installation of fire hydrants.

In the other two areas, improvements consist solely of water service replacements and flush-outs. A total of approximately 9,100 feet of existing pipeline would be replaced and approximately 10,900 feet of new pipeline would be installed. Approximately 2.3 acres would be disturbed by the project. All new and replacement pipelines would be PVC.

DESIGN CRITERIA

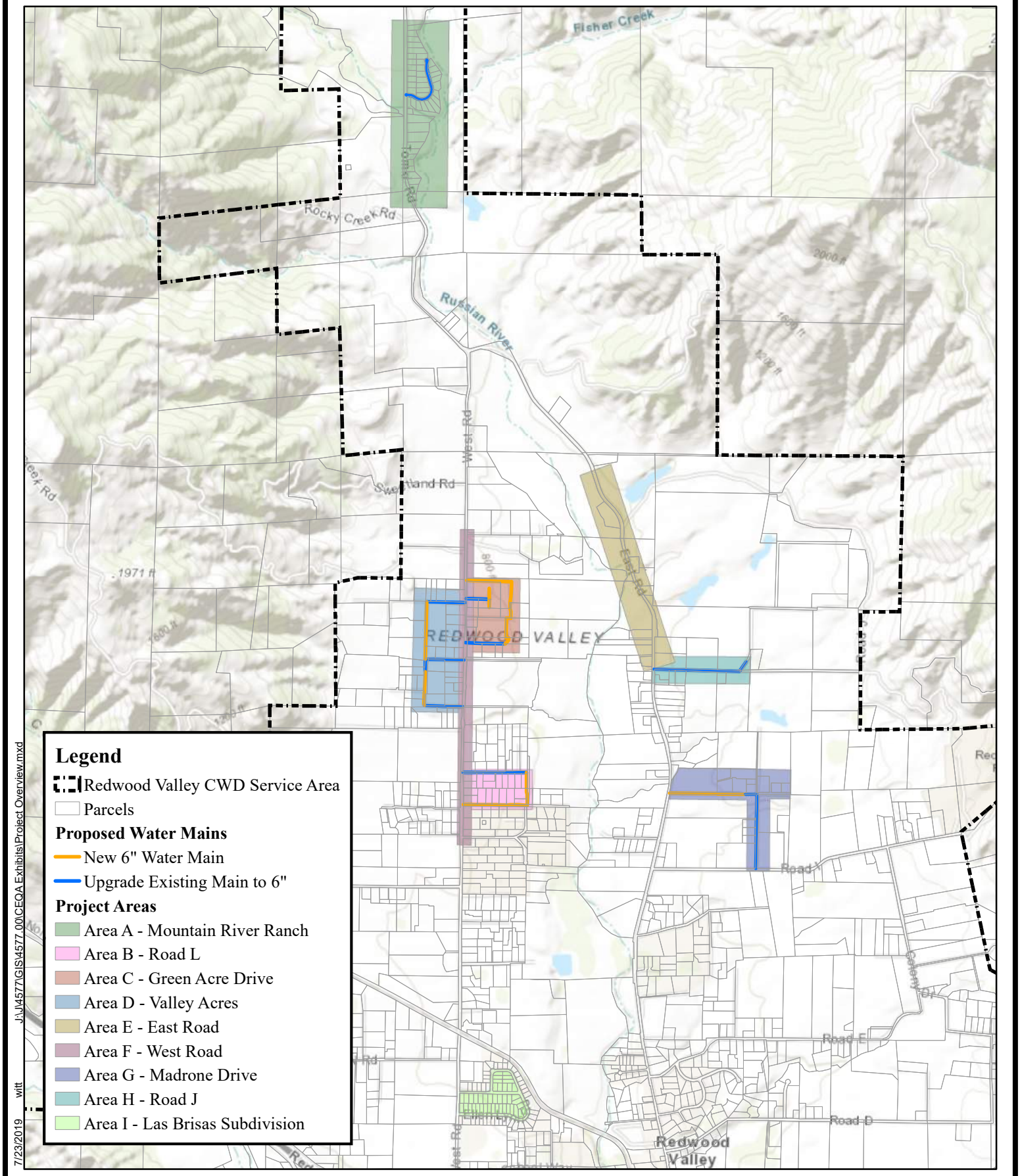
A hydraulic model of the RVCWD domestic water system was created in 1997 by Brelje and Race in conjunction with the preparation of a Domestic Water Master Plan. Brelje & Race updated that model for with the proposed improvements for this project in March 2019. The updated model was used to verify that the distribution system could be operated in a manner that results in a minimum pressure of 20 psi at all user service connections at all times, per State of California regulation §64602(a). This minimum pressure requirement is an increase of 15 psi over the mandated minimum in effect in 1997. The model was run to verify that the proposed improvements would support a minimum fire flow of 500 gpm for a two hour duration in each improvement area while complying with the minimum pressure criteria. Pipe size and material were determined based on model results and the Geotechnical Report prepared by RGH for the project on June 17, 2019.

PROJECT AREAS

The proposed improvements were broken into nine areas termed Project Areas. A description of proposed improvements for each Project Area follows. All new water main will be 6-inch C900-PVC,

Area A – Mountain River Ranch

Proposed improvements in Area A include replacement of the existing water main and individual services in Fisher Lake Drive, connection of the replacement main to the existing 6-inch main in Tomki Road, abandonment of the older parallel 4-inch main in Tomki Road, new water services connected to the existing 6-inch main in Tomki Road to replace those connected to the main to be abandoned, and three main flush-out valves. Water main replacement will be within existing paved roadways. A total of approximately 1,300 feet of main will be installed. Proposed improvements in Area A are shown on Figure 4.



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Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Parcels: County of Mendocino GIS (2018)

NORTH

0 0.125 0.25 0.5 Miles

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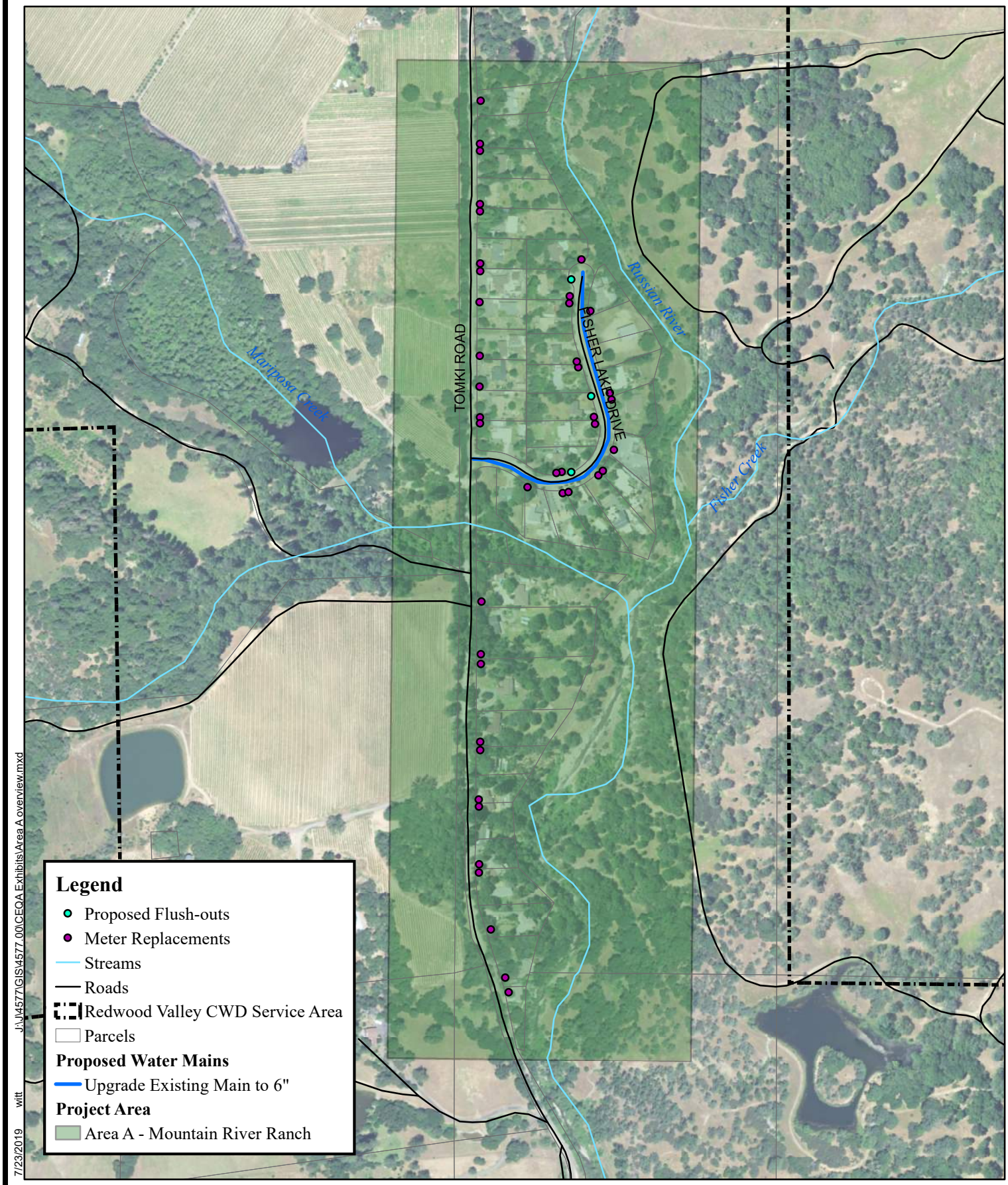
FIGURE 3

PROJECT OVERVIEW

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019



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Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

NORTH

0 125 250 500 Feet

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FIGURE 4

AREA A

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019

Area B – Road L

Proposed improvements in Area B include a new 6-inch water main in Road L looped to a 6-inch replacement main in Road K. Area B includes approximately 2,030 feet of new main and 1,350 feet of replacement main, the majority of which would be within existing paved or gravel roadways. Approximately 315 feet of new main would extend through a side and back yard and approximately 370 feet of new main would extend cross country. All services would be replaced on Road K. Parcels along Road L would have their services replaced and relocated to the respective parcel's front yard. Five flush-outs would be installed in Area B. Proposed improvements in Area B are shown on Figure 5.

Area C – Green Acre Drive

Proposed improvements in Area C include new or replacement 6-inch water mains in Green Acre Drive, Anderson Lane, Gabriel Lane, and Kickapoo Lane. Improvements would include approximately 4,110 feet of new water main and 1,330 feet of replacement water main within the existing paved or gravel roadways. Approximately 530 feet of new water main would be constructed cross country from Green Acre Drive to Kickapoo Lane with interconnections at Anderson and Gabriel Lanes. Proposed improvements in Area C are shown on Figure 6.

Area D – Valley Acres

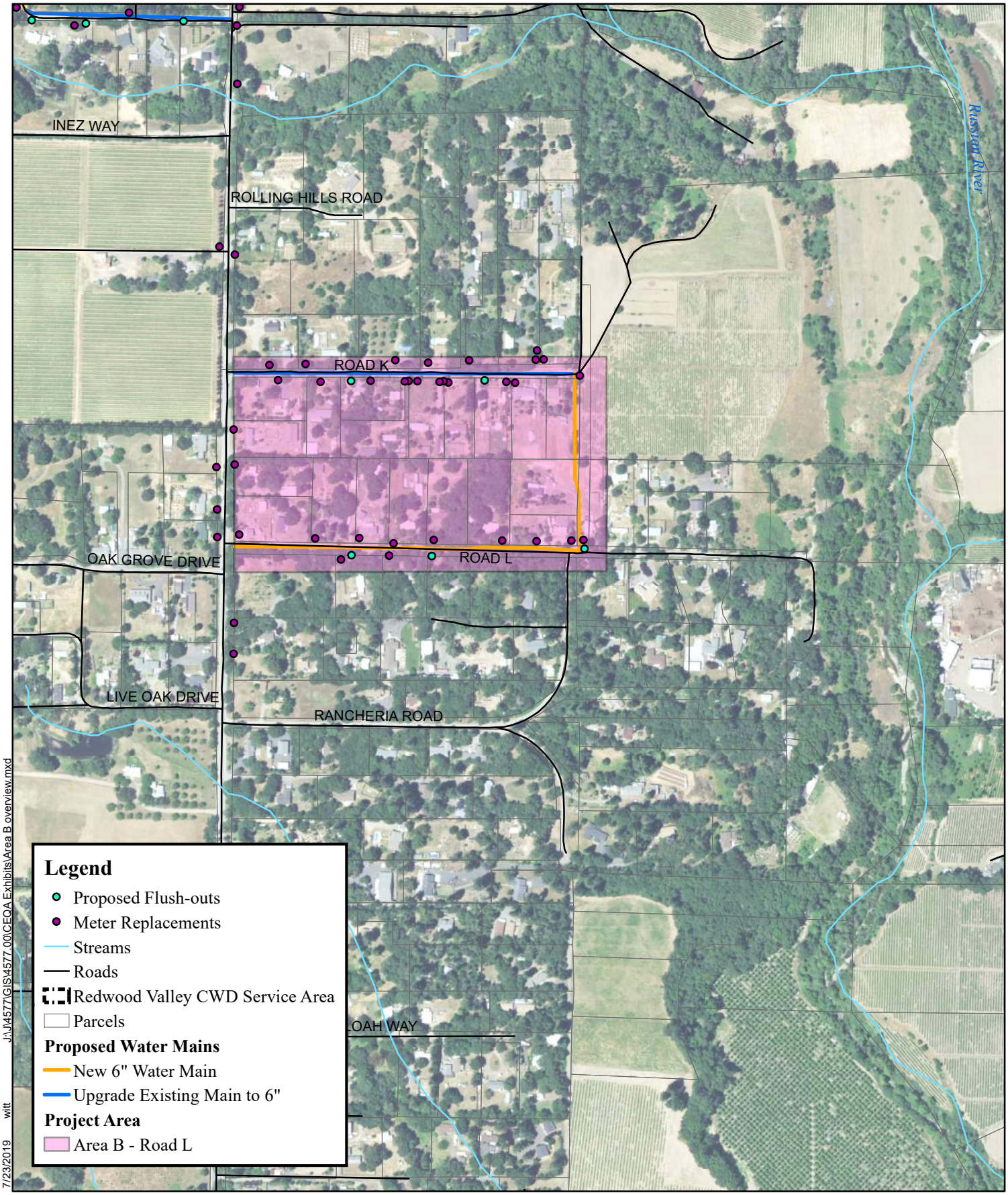
Proposed improvements for Area D include a new 6-inch water main running northerly from the end of Mohawk Trail to Foothill Road and upgrade of existing water mains in Foothill Road, Mountain View Road, and Mohawk Trail, all forming two new piping loops. Area D would include approximately 1,950 feet of new water main and 2,675 feet of replacement water main. All services within Area D will be replaced and seven flush-outs will be installed. Proposed improvements in Area D are shown on Figure 7.

Area E – East Road

Proposed improvements consist of water service upgrades and installation of flush-outs on the existing domestic water main. Area E is shown on Figure 8.

Area F – West Road

Proposed improvements consist of water service upgrades and installation of flush-outs on the existing domestic water main. Area F is shown on Figure 9.



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Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

NORTH

0 125 250 500 Feet

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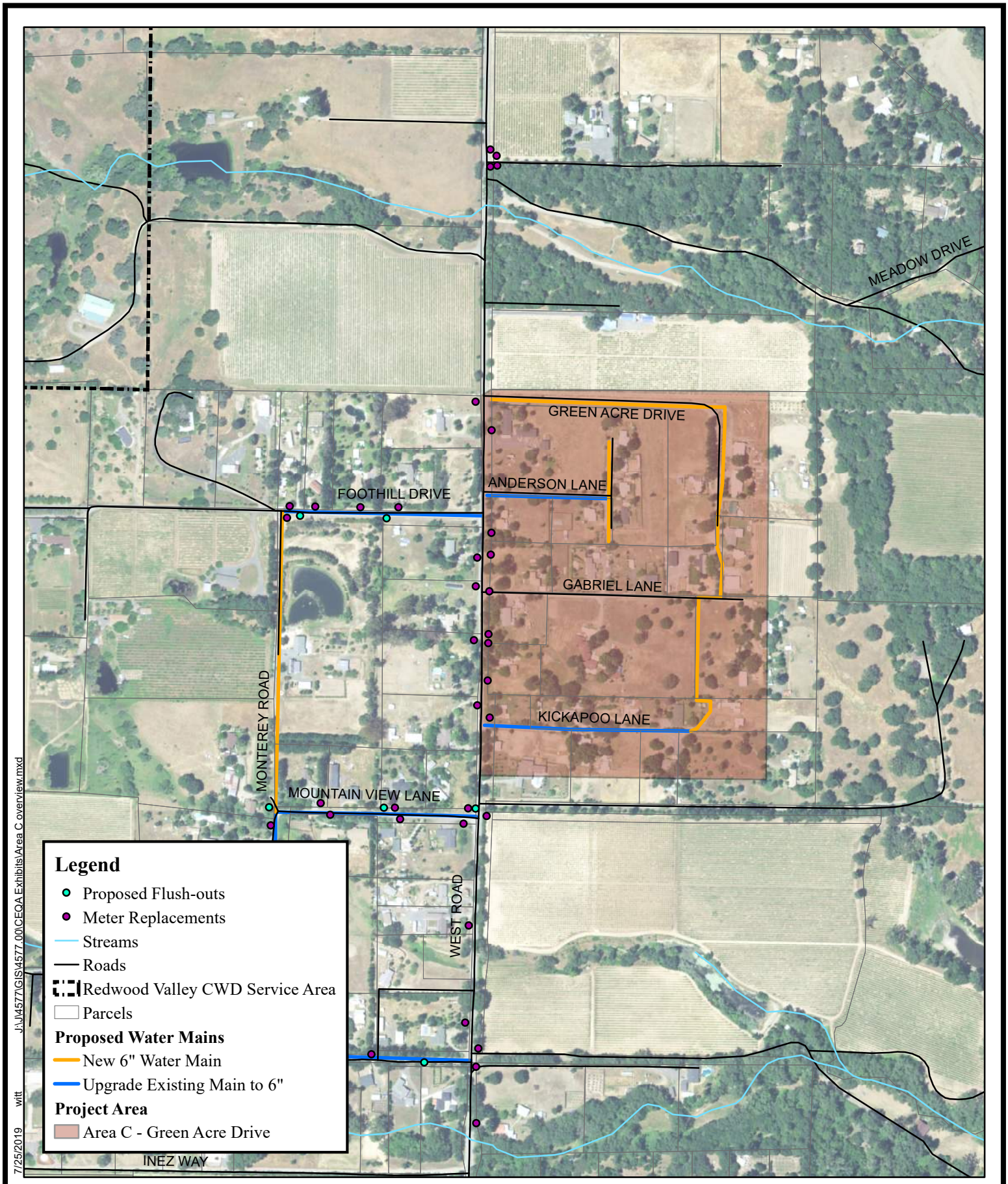
FIGURE 5
AREA B

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019



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Units: Foot US

NORTH

0 125 250 500 Feet

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FIGURE 6
AREA C

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019

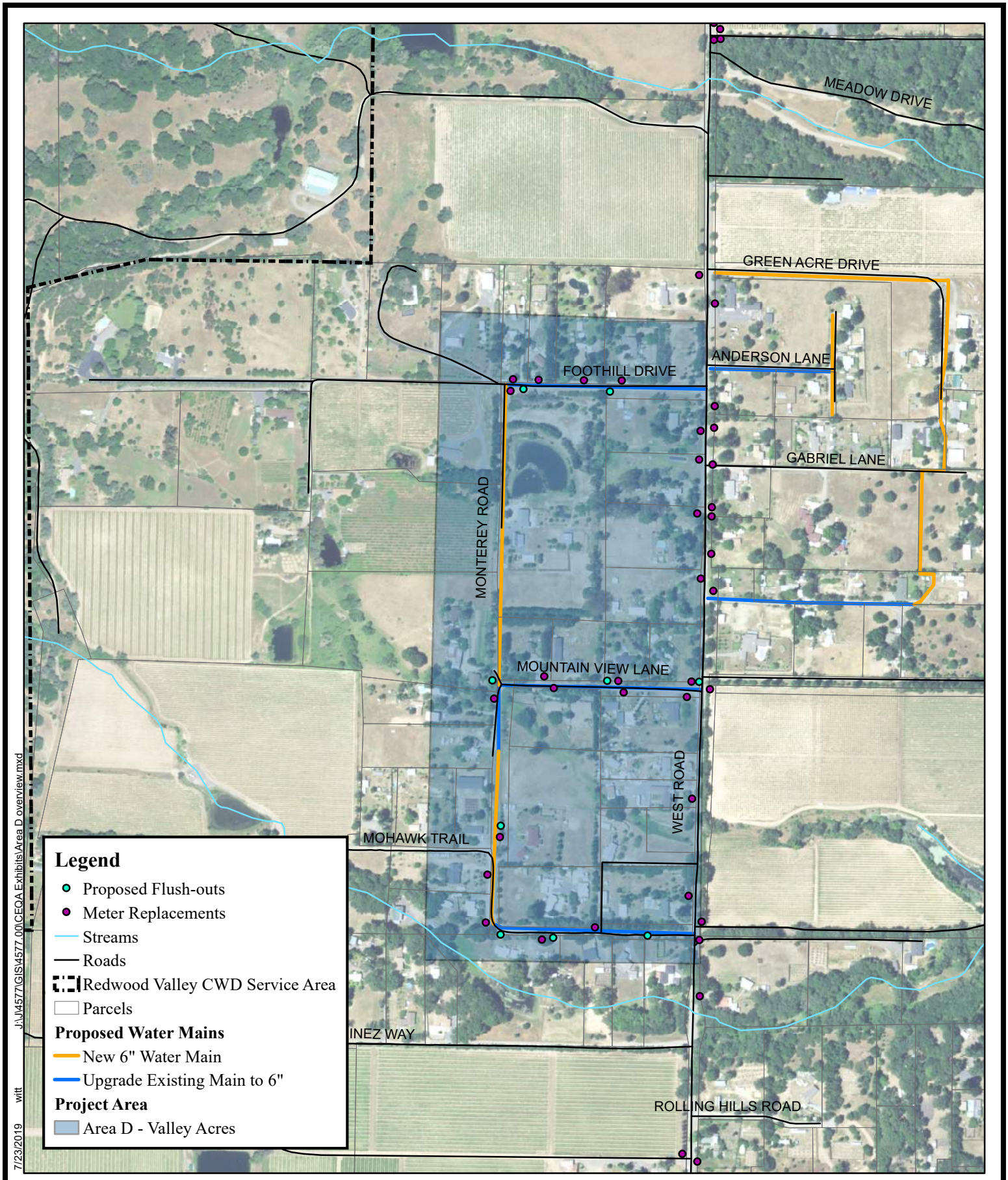

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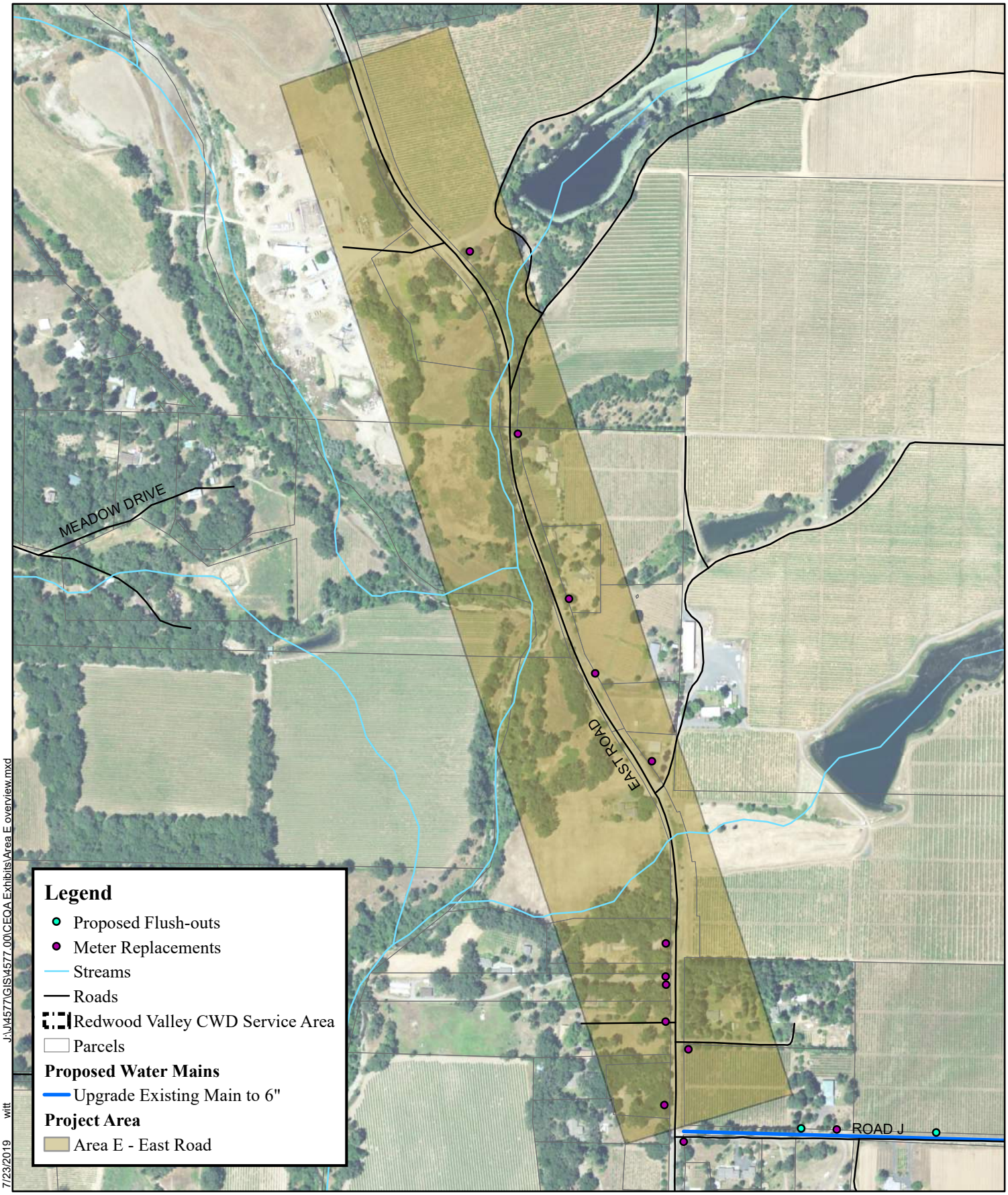
FIGURE 7
AREA D

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019



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Units: Foot US

NORTH

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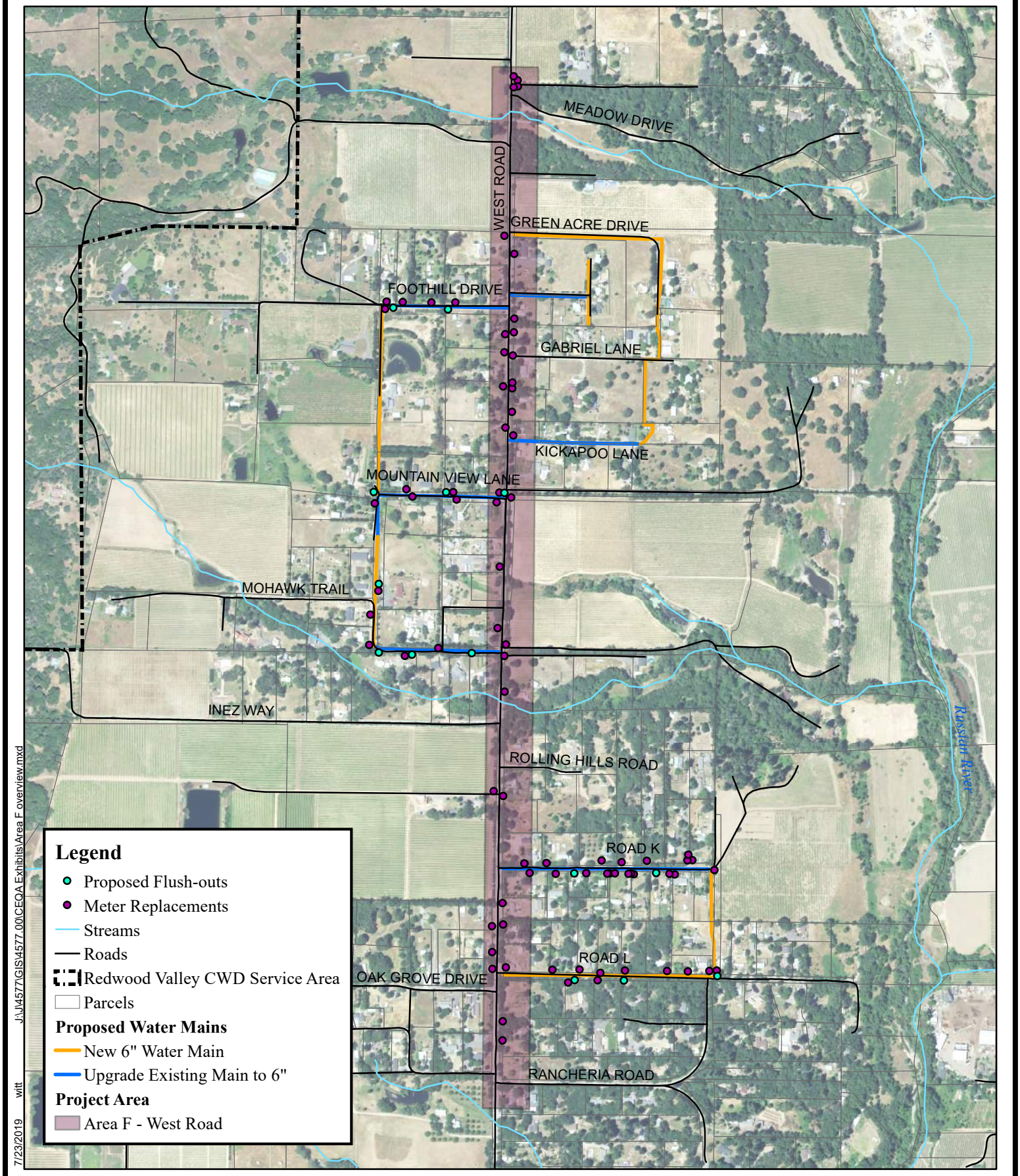
FIGURE 8
AREA E

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019



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Units: Foot US

NORTH

0 200 400 800 Feet

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FIGURE 9
AREA F

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019

Area G – Madrone Drive

Proposed improvements in Area G include upgrading the existing water main in Madrone Lane and new water main in Madrone Drive to a connection with the existing water main in East Road. Area G would include approximately 1,000 feet of new water main and 2,400 feet of replacement water main. Six services would be replaced and three flush-outs would be installed. Proposed improvements in Area G are shown on Figure 10.

Area H – Road J

Proposed improvements in Area H would consist of upgraded water services and two new flush-outs and replacement of the existing piping that runs along Road J from East Road to the first major corner of Road J, a distance of approximately 1,800 feet. Proposed improvements in Area H are shown on Figure 11.

Area I – Las Brisas Subdivision

Proposed improvements in the Las Brisas Subdivision include installation of flush-outs on the existing 4-inch looped mains. Area I is shown on Figure 12.

PROJECT CONSTRUCTION

It is anticipated that the majority of the construction would include two five-man crews working weekdays. Equipment is anticipated to include: an excavator, a loader, a dump truck, a skip loader, an air compressor, a transport truck, an earth compactor, a pavement grinder, and a paving machine. Operations and material stockpiling would be constrained to paved areas.

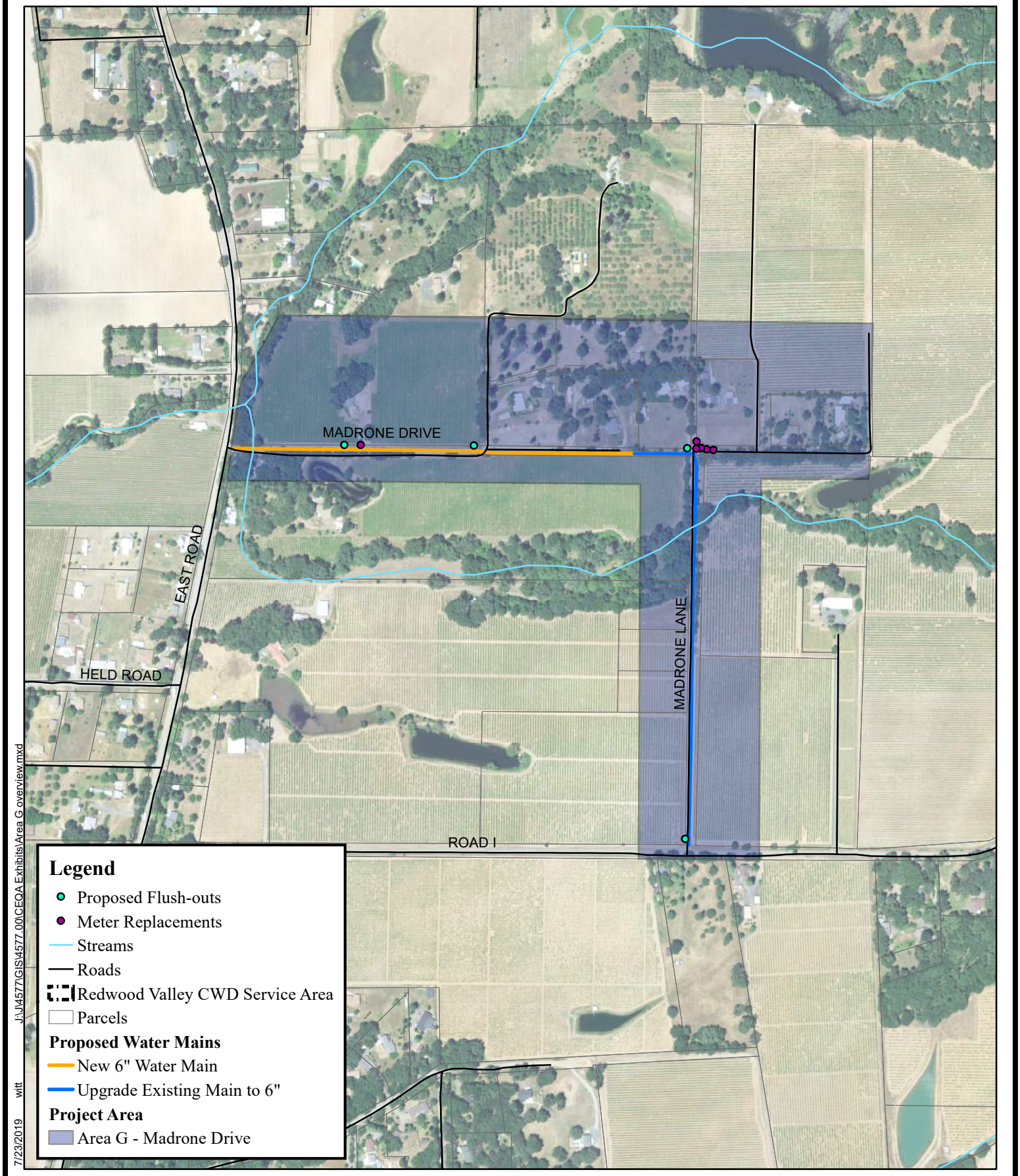
SCHEDULE

It is anticipated that the construction would last approximately six to nine months. It is assumed that there would be two crews working on different parts of the project. Grading during the rainy season would be limited by the project's erosion control plan, but construction within stabilized areas may occur during the rainy season.

CONSTRUCTION EQUIPMENT AND ACTIVITIES

Pipeline Installation

In most areas, the pipeline would be installed using open cut trenching. It is anticipated that the pipeline would be installed within existing paved roadways and/or on road shoulders. Pipeline construction rates are expected to exceed 100 feet per day for each crew that is installing pipeline.



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NORTH

0 125 250 500 Feet

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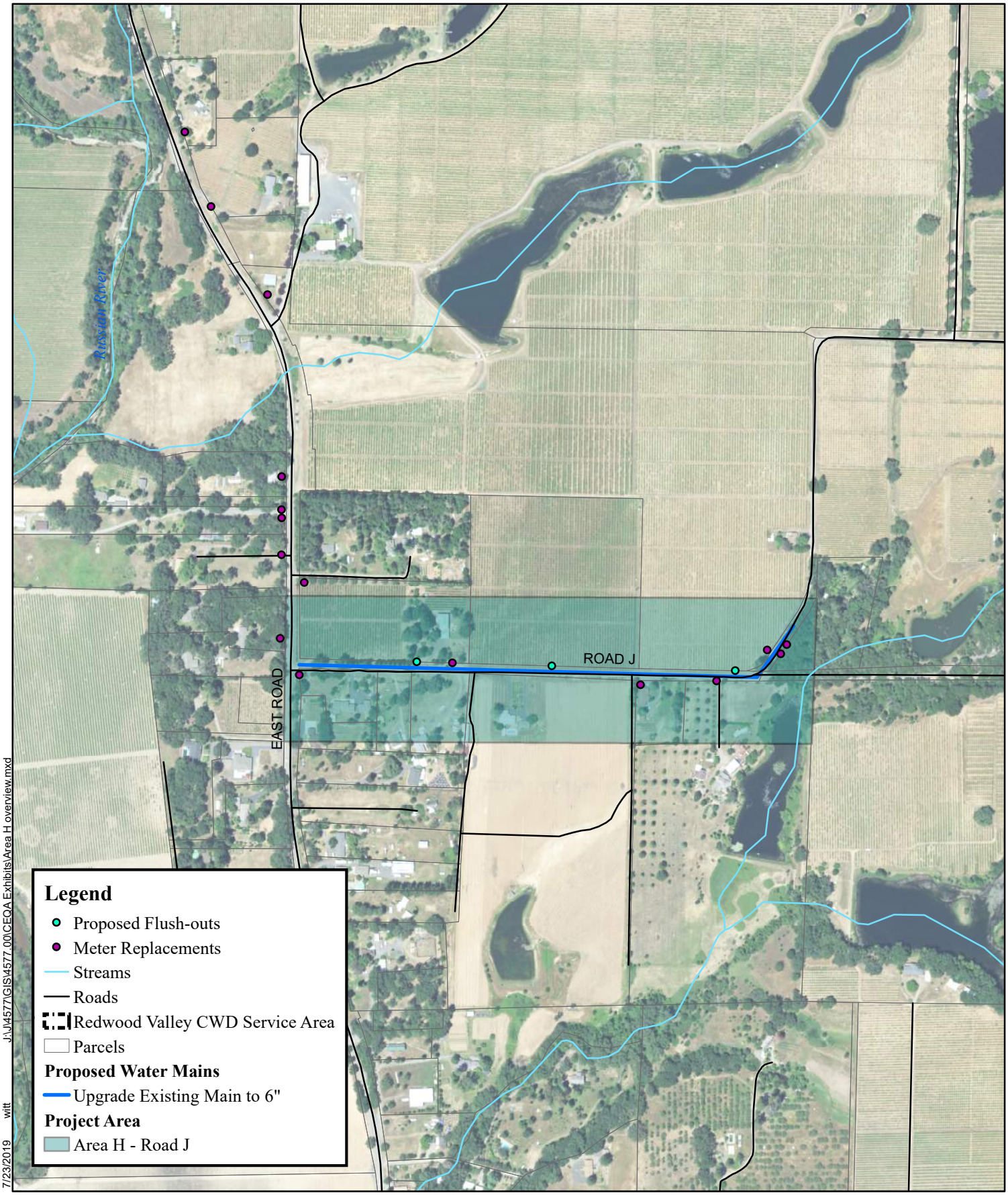
FIGURE 10
AREA G

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019



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NORTH

0 125 250 500 Feet

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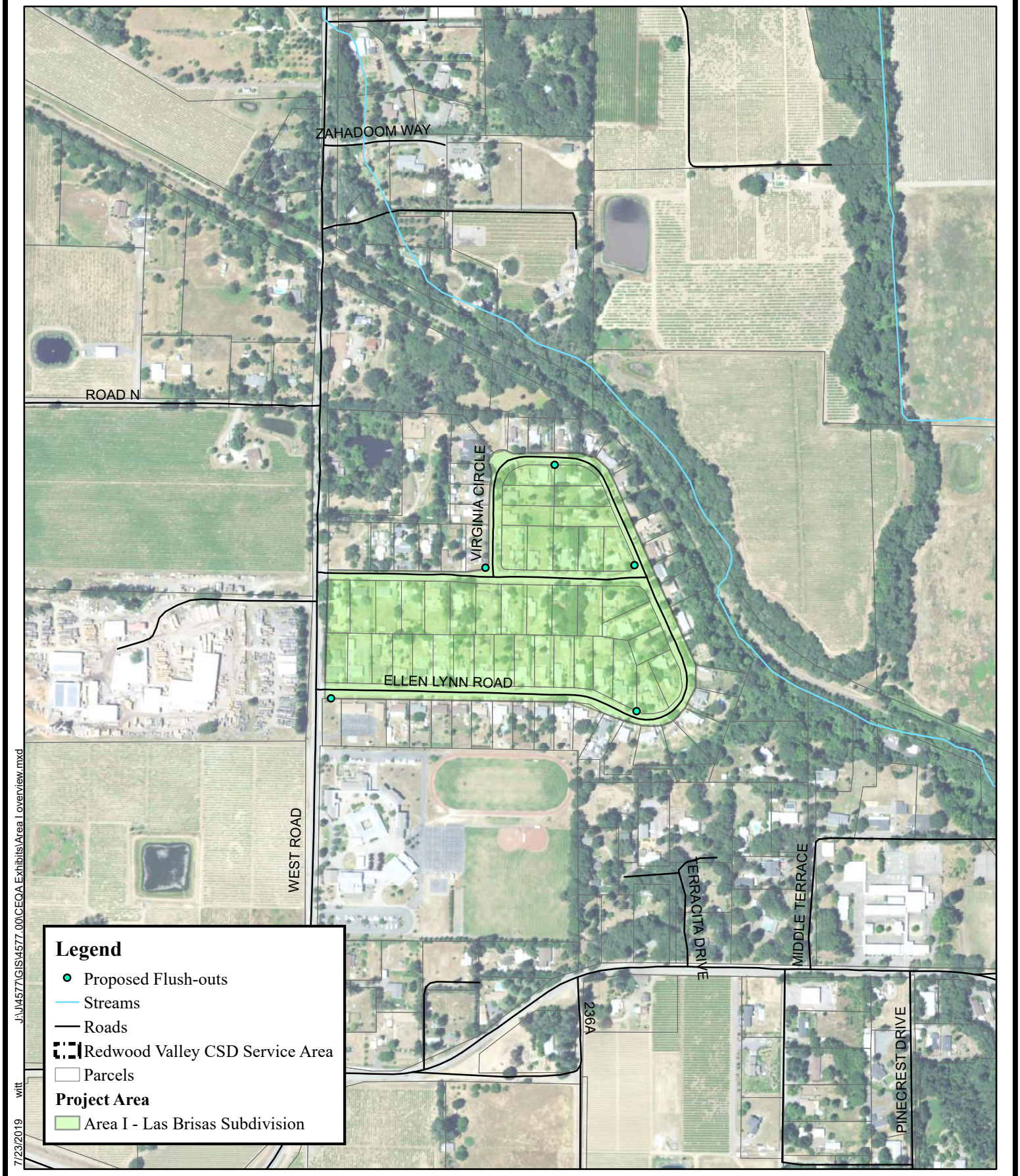
FIGURE 11
AREA H

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019



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Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

NORTH

0 125 250 500 Feet

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FIGURE 12
AREA I

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019

It is expected that each pipeline crew would utilize an excavator (midi or small standard size excavator), compaction equipment and loader and be supported by two-axle six-yard dump trucks or three axle ten-yard dump trucks for handling spoils and supplying backfill materials. A large hoe-ram may be needed to complete the excavation if large boulders are encountered. The trench depths would be generally be 42 inches deep and 24 inches wide. It is anticipated that 30 to 60 cubic yards of material per pipeline crew would be exported from trenches per day and the same amount of material would be imported per day for backfill resulting in approximately ten to 15 truck trips per day associated with trenching for each crew.

Where the pipeline would cross a culvert, the pipeline would be installed above it where possible or below it. The culvert itself would not be modified. There would be no impact to the upstream or downstream area. Where the pipeline would cross under a culvert, the trench depth could reach six feet deep and may exceed that depth if the culvert is large. Trenches deeper than five feet would require the use of shoring to support the trench walls.

If shallow groundwater was encountered during construction activities, dewatering activities would be required. Groundwater would be discharged to an appropriate on-site area or pumped into tanks for proper disposal off-site. In the event that groundwater encountered during pipeline construction could not be contained on site or could not be pumped into tank trucks and transported to a disposal facility, the groundwater could be discharged to a surface water body. This would require obtaining a General Order for Dewatering and Other Low Threat Discharges to Surface Water Permit (National Pollutant Discharge Elimination System (NPDES) North Coast Regional Water Quality Control Board (Regional Board).

During construction, vertical wall trenches would be temporarily closed at the end of each work day, either by covering with steel trench plates, using backfill material, or installing barricades to restrict access, depending on the conditions of the encroachment permit from Mendocino County.

Trench Backfill

Trench backfilling would begin immediately after the pipe was installed in the trenches. Appropriate backfill materials would be used to prevent damage to the pipelines and allow adequate backfill compaction using appropriate equipment. Imported backfill would be delivered to stockpiles near the open trenching. Once backfilling is complete, surface restoration would be completed.

Surface Restoration

Typical surface restoration within paved roadways would include compacting 18-inches of Class 2 aggregate base and installing a 3-inch thick pavement patch that extends 12 inches beyond each side of the trench over its entire length after backfilling and compaction are complete. The surface restoration crew would typically use a grinder, a skip loader, a roller, and a paving machine. It is anticipated that the paving would produce about one truck of off-haul and require two trucks of asphalt.

Services and Cleanout Valves

It is anticipated that services and cleanout valves would be installed in a similar manner to the pipeline. The service meter boxes and cleanout valves are required to be outside the paved roadway resulting in disturbed areas. Crew size for service and cleanout valve installation may be one or two people smaller than the pipeline crew. Each service location is expected to produce a small volume of spoils to off haul and a similar volume of backfill material would need to be imported. The service installation area would generate two total truck

trips per day, one for spoils off-haul and one for imported backfill. It is anticipated that the cleanout valve installation would generate about one truck load of spoils and require one truck trip of imported backfill.

GROWTH INDUCEMENT POTENTIAL

The proposed project does not induce growth. The project replaces deficient water mains and installs new water mains to provide sufficient water service within the existing water system to serve existing connections and to facilitate rebuilding and installation of future fire hydrants. The water system is currently under a new connection moratorium based on water supplies and this project will not alter that condition. Any growth within the District would be according to relevant General Plan and zoning designations currently planned for.

OTHER PUBLIC AGENCY APPROVALS

The project is under District review authority. The project may require additional permitting approvals from the following agencies:

County of Mendocino

All work within the County of Mendocino right of way would require encroachment permits.

North Coast Regional Water Quality Control Board

The Regional Board has discretionary authority regarding the following permits and approvals:

- NPDES Permit. The U.S. Environmental Protection Agency (EPA) has delegated responsibility for issuance of Clean Water Act (CWA) NPDES permits to the Regional Water Quality Control Boards within California. These permits are required to ensure protection of surface waters from construction and other land-disturbing activity.
- 401 Water Quality Certification for potential impacts to wetlands or waters.
- Waste Discharge Requirements for potential impacts to wetlands or waters of the state.

US Army Corps of Engineers

The US Army Corps of Engineers (USACE) has discretional authority regarding the following permit:

- Section 404 of the Clean Water Act for potential impacts to wetlands and waters of the US.

State of California Water Resources Control Board, Division of Drinking Water (DDW)

DDW may require an amendment to the existing water system operating permits due to the installation of the new and replacement water mains.

U.S. Fish and Wildlife Service (FWS) and the California Department of Fish and Wildlife (CDFW)

Consultation is required with these agencies if a project has the potential to take or otherwise harm federally listed or state-protected wildlife and plant species.

ENVIRONMENTAL SIGNIFICANCE CHECKLIST

The following list of questions is provided by Appendix G of the CEQA Guidelines in order to determine a project's environmental impacts. The checklist utilized herein was updated by the State of California in 2019.

Based on the project description, answers to the questions fall into one of four categories:

- Potentially Significant Impact
- Less Than Significant Impact with Mitigation Incorporation
- Less Than Significant Impact
- No Impact

A "No Impact" response indicates that no impact would result from implementation of the project. A "Less Than Significant Impact" response indicates that an impact would occur, but the level of impact would be less than significant. A "Less Than Significant with Mitigation Incorporation" response indicates that an impact is involved and, with implementation of the identified mitigation measure, such impact would be less than significant. A "Potentially Significant Impact" response indicates that there is substantial evidence that impacts may be significant if mitigation measures are unknown, infeasible, or not proposed. Each response is discussed at a level of detail commensurate with the potential for adverse environmental effect.

The discussion following each checklist consists of a *Setting* section including environmental and regulatory information, an *Analysis* section, a *Cumulative Impacts* discussion, and a section for identification of *Mitigation Measures*, as necessary. The *Analysis* section includes a discussion addressing whether the project would result in potential adverse environmental impacts. All potential impacts have been considered, including on-site and off-site impacts, direct and indirect impacts, construction and operation-related effects, as well as cumulative effects. The recently updated 2019 CEQA Guidelines contain revised regulations relative to the project's potential for contributing to cumulative effects[1]. The *Cumulative Impacts* section presents information regarding the project's potential cumulative impacts and is included in this section. If an impact(s) has been identified and mitigation is required to reduce the impact to a less than significant level, then such measures are contained in the *Mitigation Measures* sections.

[1] California Environmental Quality Act Guidelines, §15064(i).

I AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Have a substantial adverse effect on a scenic vista?	□	□	□	■
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	□	□	□	■
c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	□	□	□	■
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	□	□	□	■

Environmental Setting

The project is located in the unincorporated community of Redwood Valley in Mendocino County, California. Redwood Valley is surrounded to the west, north, and east by terrain consisting of gently sloping hills and steep ridges. Highway 101 is west of Redwood Valley and the City of Ukiah and Highway 20 are to the south. The project area is predominantly rural residential in nature surrounded by largely undeveloped hillsides. The major sources of light and glare in the project vicinity are from residential development. Highway 20 to the south is an eligible state scenic highway, but is not officially designated[2]. There are no other designated scenic highways in the project area.

Analysis

a. Would the project have a substantial adverse effect on a scenic vista?

A scenic vista is generally considered a view of an area that has remarkable scenery or a resource that is indigenous to the area. Although the project area is not considered to be a scenic vista for the purposes of this environmental analysis, the site does have characteristics that most people would consider aesthetically pleasing and a positive visual resource. Most of the immediate project locations occur in roadways or easements and are surrounded by rural residential development or small agricultural uses.

[2] http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/

The proposed project would not result in the disturbance or elimination of open space areas or remove an object of aesthetic value. The project would not result in long-term physical adverse changes to the height or bulk of structures or view blockages within the view shed of the project area or visible from State Highway 20. The project primarily involves below-ground water pipelines that would not be visible once construction is complete. Therefore, obstruction of scenic views would not occur.

Construction activities would create dust, expose soil from excavation and grading and create soil piles from trenching and excavation, but these activities would cease after construction is complete. Short-term construction impacts associated with the project would not have a significant impact on any scenic vista.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Highway 20 to the south and east of the project is designated as an eligible state scenic highway, but is not officially designated. Highway 101 to the west is not designated. The County has not designated any scenic corridors.

The project would primarily be installed below grade with all surfaces restored. None of the project elements would be visible from Highway 20. Any visual impacts would be short term and limited to the construction phase of the proposed project. As such, the proposed project would not introduce features that would adversely affect the use of Highway 20 as a scenic roadway, should it be officially designated, and would have no impact.

c. In nonurbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The project would not significantly degrade the existing visual character of the project area. The project would primarily be installed below grade in existing roadways or public utility easements and therefore would not substantially degrade the existing visual character of the site or surroundings.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project would not create a new substantial source of light or glare. New and replacement water mains and appurtenances would be constructed below grade with all surfaces restored.

Cumulative Impacts

There are no adverse cumulative environmental impacts to aesthetic resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to aesthetic resources have been identified; therefore, no mitigation is required.

II AGRICULTURAL & FOREST RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection (CalFire) regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?	□	□	□	■
c. Would the project 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. Would the project result in the loss of forest land or conversion of forest land to non-forest use?	□	□	□	■
e. Would the project 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?	□	□	□	■

Environmental Setting

The zoning in the project locations are a combination of agricultural, rural residential, and residential. Land uses in the project area include rural residential uses and small scale agricultural uses. The project would occur almost entirely in existing roadways, developed driveways, or public utility easements.

REGULATORY SETTING

Farmland Mapping and Monitoring Program

Agricultural lands within the state of California are rated according to soil quality and irrigation status by the Farmland Mapping and Monitoring Program (FMMP). The FMMP produces maps and statistical data used

for analyzing impacts on California's agricultural resources. The best quality land is called Prime Farmland, followed by Unique Farmland, Farmland of Statewide Importance, and so on, in decreasing order of importance. The maps are updated every two years with the use of aerial photographs, a computer mapping system, public review, and field reconnaissance.

The project area has numerous designations, including Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Urban and Built-up Land and Grazing Land, as shown on Figure 13.

Williamson Act

Agricultural land in the project area may also be subject to the California Land Conservation Act of 1965, more commonly referred to as the Williamson Act. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are lower than normal because they are based on farming and open space uses as opposed to full market value. Land under a Williamson Act contract is shown on Figure 13.

Analysis

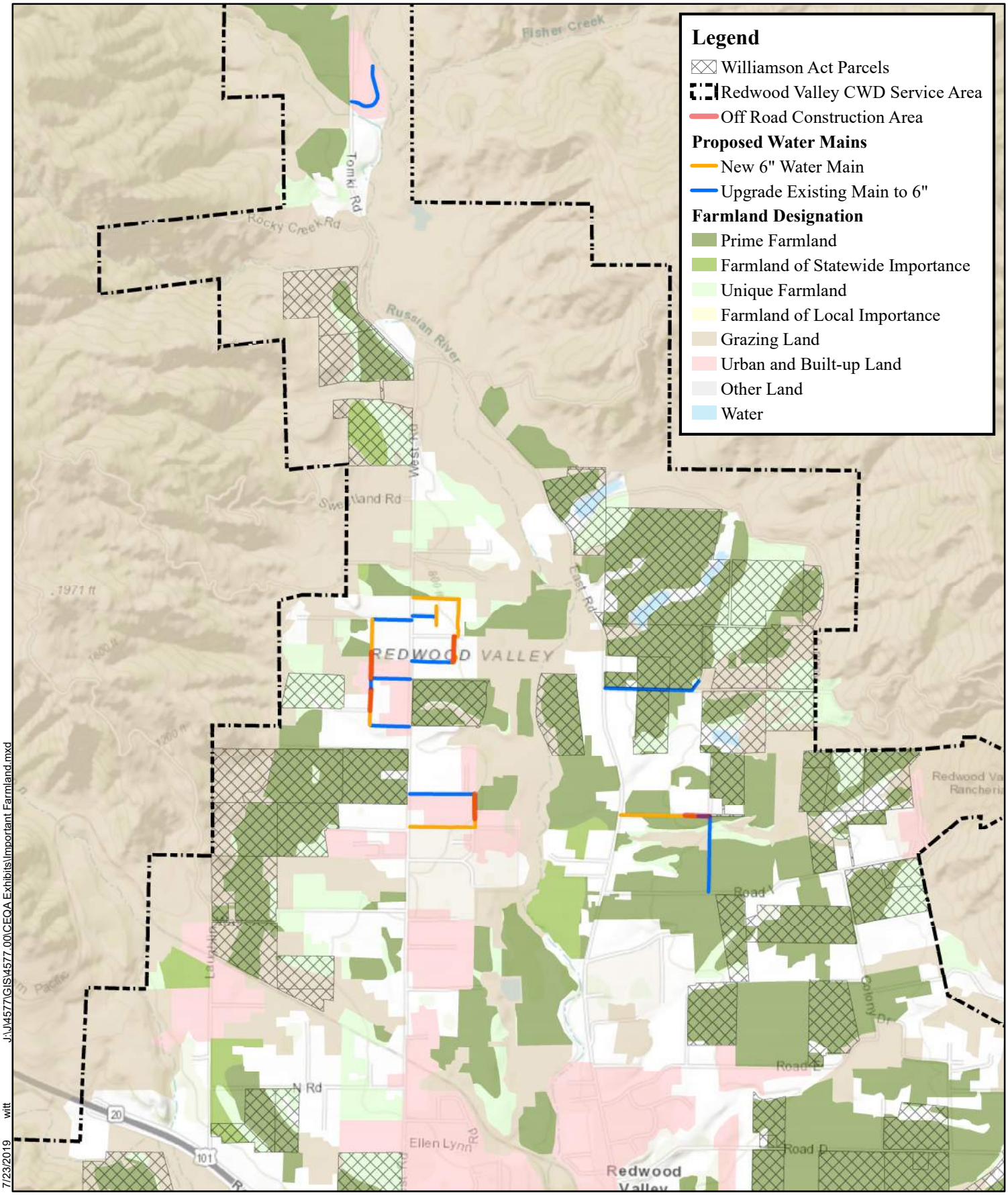
a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

As shown on Figure 13, various important farmland designations by the Farmland Mapping and Monitoring Program[3] occur within the project extents. Project components would generally be located within developed roadways, roadway shoulders, gravel driveways or already developed areas that do not support farmland. The project would not convert Farmland to non-agricultural uses.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project locations are generally within existing roadways or gravel roads that are not under agricultural production. Zoning designations in the project area allow agricultural uses or are specifically zoned agricultural. There are numerous Williamson Act contracts in the project vicinity. The project would not remove any land from agricultural production and would therefore not conflict with agricultural zoning or Williamson Act contracts.

[3] *Mendocino County Important Farmland—2016*. Farmland Mapping and Monitoring Program of the California Resources Agency.



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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US
Data Source Information:
California Department of Conservation (2016)
Williamson Act: County of Mendocino (2018)

NORTH

0 0.125 0.25 0.5 Miles

Brelje & Race CONSULTING ENGINEERS
475 Aviation Blvd. Suite 120, Santa Rosa, CA 95403

FIGURE 13

IMPORTANT FARMLAND

REWOOD VALLEY COUNTY WATER DISTRICT

AUGUST 2019

c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Forest land, as defined by the U.S. Forest Service, includes land at least ten percent of which is stocked by trees of any size, or land formerly having had such tree cover that would be naturally or artificially regenerated. Forest land includes transition zones, such as areas between heavily forested and non-forested lands that are at least ten percent stocked with forest trees and forest areas adjacent to urban and built-up lands.

The project does not propose any activities related to timber harvest nor would it result in the conversion of forest land to non-forest uses. As such, there would be no impact to forest land or conversion of designated land to non-forest uses. The project locations are not zoned for and do not currently support timberland nor are they zoned as timber production land[4] by the County.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

The project locations do not currently support forest land and the project area is largely developed with rural residential and small scale agricultural uses. The proposed project would not result in any impact to forest land.

e. Would the project 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?

Because new and replacement water mains would be located underground and primarily in existing roadways or public utility easements, the project would not impact agricultural resources in the project area or result in the conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use.

Cumulative Impacts

There are no adverse cumulative environmental impacts to agricultural and forestry resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to agricultural and forestry resources have been identified; therefore, no mitigation is required.

[4] https://www.mendocinocounty.org/home/showdocument?id=7002

III AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations:	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project conflict with or obstruct implementation of the applicable air quality plan?	□	□	□	■
b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	□	■	□	□
c. Would the project expose sensitive receptors to substantial pollutant concentrations?	□	■	□	□
d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	□	□	□	■

Environmental Setting

The project is located within the North Coast Air Basin that includes Del Norte County, Humboldt County, Mendocino County, and the northern portion of Sonoma County. The Mendocino County Air Quality Management District (MCAQMD) monitors and manages air quality in Mendocino County.

Ukiah, Willits and Surrounding Area

The MCAQMD provides the following setting information to be used in CEQA documents:

The inland urban section of Mendocino County consists of the cities of Ukiah and Willits as well as a large number of unincorporated communities along the main transportation corridors. Highway 101 is the main (in some areas exclusive) north/south roadway and Highway 20 is the main east/west connector.

Both Ukiah and Willits are moderate to low density communities with traffic circulation problems. Traffic in Ukiah is hampered by a lack of north/south access and the development of shopping areas far removed from residential areas. Willits is divided by Highway 101, which also serves as the sole north/south access route. Both cities have limited available land for traditional subdivisions, however "infill" development is common in both communities. Ukiah is served by frequent bus service from Mendocino Transit Authority and Willits has several daily round trip buses to Ukiah. Both Ukiah and Willits have a moderate amount of industrial development mainly in the forest products industry[5].

[5] http://www.co.mendocino.ca.us/aqmd/pdf_files/AQSetting.pdf

Air Quality

This area, like the rest of Mendocino County, is non-attainment for the state PM 10 standard. The primary sources of PM-10 are wood combustion emissions, fugitive dust from construction projects, automobile emissions, and industry. Some of the automobile emissions in the region are the result of "pass-though" traffic on Highway 101 because of its nature as a major transportation corridor in the state. The MCAQMD has full monitoring stations (NOx, Ozone, CO, and PM 10) in both Ukiah and Willits. A PM 2.5 monitor has been established in Ukiah. Both Ukiah and Willits have had PM 10 exceedances in the past. Winter cold-air inversions are common in the valleys from November to February.

Regulatory Setting

Air quality in the project vicinity is regulated by several jurisdictions, including EPA, ARB, and MCAQMD. These entities, described below, develop rules, regulations, and policies to attain the goals or directives imposed upon them through legislation.

FEDERAL REGULATIONS

The Clean Air Act

The Federal Clean Air Act (FCAA) required the US EPA to establish National Ambient Air Quality Standards (NAAQS) and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions. The FCAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The US EPA has responsibility to review all state SIPs to determine conformance to the mandates of the FCAA, and the amendments thereof, and determine if implementation would achieve air quality goals. If the US EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area that imposes additional control measures. Failure to submit an approvable SIP or to implement the plan within the mandated time frame may result in sanctions being applied to transportation funding and stationary air pollution sources in the air basin.

Federal Conformity Requirements

The CAA Amendments of 1990 require that all federally funded projects come from a plan or program that conforms to the appropriate State Implementation Plan (SIP). Federal actions are subject to either the Transportation Conformity Rule (40 Code of Federal Regulations [CFR] 51[T]), which applies to federal highway or transit projects, or the General Conformity Rule (40 CFR 51[W]), which applies to all other federal actions.

STATE REGULATIONS

California Clean Air Act

The California Air Resources Board (CARB) is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act of 1988. The California Clean Air Act (CCAA) requires that all air districts in the state endeavor to achieve and maintain California Ambient Air Quality Standards (CAAQS) for ozone, CO, sulfur dioxide (SO2), and nitrogen dioxide (NO2) by the earliest practical date. The CCAA specifies that districts focus particular attention on reducing the emissions from transportation and area-wide emission sources, and the act provides districts with authority to regulate indirect sources. Each district plan is required to either (1) achieve a five percent annual reduction, averaged over consecutive three-year periods, in district-wide emissions of each nonattainment pollutant or its precursors, or (2) provide for implementation of all feasible measures to reduce emissions. Any planning effort for air quality attainment would thus need to consider both state and federal planning requirements.

LOCAL REGULATIONS

Mendocino County Air Quality Management District (MCAQMD)

The MCAQMD is designated by law to adopt and enforce regulations to achieve and maintain ambient air quality standards. The MCAQMD is a regional agency created by the state that regulates stationary sources of air pollution within the air basin. The MCAQMD also regulates open burning and is delegated a variety of other programs such as state Air Toxic Control Measures (ATCMs) and federal New Source Performance Standards (NSPSs). The main purpose of the MCAQMD is to enforce local, state, and federal air quality laws, rules, and regulations in order to maintain the ambient air quality standards (AAQSs) and protect the public from air toxics through local, CARB ATCM, and federal EPA NESHAP specific control regulations. Because the MCAQMD is an attainment area (or is unclassified) for all state and federal criteria pollutants, it is not required to prepare air quality attainment/management plans.

CRITERIA POLLUTANTS

Pollutants subject to federal ambient standards are referred to as "criteria" pollutants because the United States Environmental Protection Agency (US EPA) publishes criteria documents to justify the choice of standards. The federal and California ambient air quality standards are defined below for criteria pollutants. The federal and state ambient standards were developed independently with differing purposes and methods, although both federal and state standards are intended to avoid health related effects.

State

- Unclassified: A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- Attainment: A pollutant is designated attainment if the state standard for that pollutant was not violated at any site in the area during a three-year period.
- Nonattainment: A pollutant is designated nonattainment if there was at least one violation of a State standard for that pollutant in the area.

- Nonattainment / Transitional: A subcategory of the nonattainment designation. An area is designated nonattainment / transitional to signify that the area is close to attaining the standard for that pollutant.

Federal

- Unclassified: Any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.
- Attainment: Any area (other than an area identified in clause (i)) that meets the national primary or secondary ambient air quality standard for the pollutant.
- Nonattainment: Any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.

Current California and Federal standards for certain types of pollutants are shown below.

Pollutant	Averaging Time	State Standard	Federal Primary Standard
Ozone	1-Hour 8-Hour	0.09 ppm 0.07 ppm	-- 0.070 ppm
PM10	Annual 24-Hour	20 ug/m^3 50 ug/m^3	-- 150 ug/m^3
PM2.5	Annual 24-Hour	12 ug/m^3 ---	12 ug/m^3 35 ug/m^3
Carbon Monoxide	8-Hour 1-Hour	9.0 ppm 20.0 ppm	9.0 ppm 35.0 ppm
Nitrogen Dioxide	Annual 1-Hour	0.03 ppm 0.18 ppm	.053 ppm 100 ppb
Sulfur Dioxide	24-Hour 3-Hour 1-Hour	0.04 ppm -- 0.25 ppm	.14ppm -- 75 ppb
Lead	30-Day Avg. Calendar Quarter 3-Month Avg.	1.5 ug/m^3 -- --	-- 1.5 ug/m^3 0.15 ug/m^3

ppm = parts per million

ppb = parts per billion

ug/m^3 = micrograms per cubic meter

MONITORING STATION DATA

Ambient air quality measurements are routinely conducted at nearby air quality monitoring stations. MCAQMD maintains seven monitoring stations throughout the county and is designated as attainment or unclassified for all state and federal standards except PM10. The two closest stations are located in Ukiah. Because the county is an attainment area (or is unclassified) for all criteria pollutants (with the exception of PM10), it is not required to prepare air quality attainment/management plans.

Both the California Air Resources Board (CARB) and the US EPA use this type of monitoring data to designate areas according to attainment status for criteria air pollutants established by the agencies. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvements. The three basic designation categories are nonattainment, attainment, and unclassified, as previously defined.

Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The project is located within the MCAQMD. The MCAQMD is designated to be in attainment or unclassified for all federal and state constituents, with the exception of PM10 (see b, below). The MCAQMD does not have an applicable air quality plan as air quality generally meets attainment standards. The project does not increase long-term emissions and would not impact air quality plans.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The MCAQMD is responsible for monitoring and reporting air quality data for the county within the North Coast Air Basin. Both the U. S. Environmental Protection Agency and the California Air Resources Board have established ambient air quality standards for common pollutants. These ambient air quality standards represent safe levels that avoid specific adverse health effects associated with each pollutant, termed criteria pollutants.

As shown in the table below, with the exception of PM10, the MCAQMD is designated to be in attainment or unclassified for all federal constituents and in attainment or unclassified for all state constituents. The MCAQMD does not have any management plans as air quality generally meets attainment standards.

Standard	2017 State Status[6]	2017 Federal Status
Ozone 8-Hour	Attainment	Unclassified/Attainment
Ozone 1-Hour	Attainment	N/A
PM2.5	Attainment	Unclassified/Attainment
PM10	Nonattainment	Unclassified
Carbon Monoxide	Attainment	Unclassified/Attainment
Nitrogen Dioxide	Attainment	Unclassified/Attainment
Sulfur Dioxide	Attainment	Unclassified
Sulfates	Attainment	N/A
Lead	Attainment	Unclassified/Attainment
Hydrogen Sulfide	Attainment	N/A
Visibility Reducing Particles	Attainment	N/A

The MCAQMD has not adopted its own thresholds of significance for project emissions. For air quality impacts, the Bay Area Air Quality Management District (BAAQMD) provides useful guidance in

[6] http://www.arb.ca.gov/desig/adm/adm.htm

assessing project impacts on attainment status. The BAAQMD's 2017 Air Quality Guidelines[7] establish recommended thresholds of significance for criteria pollutants for project construction and operation for CEQA analysis. The Air Quality Guidelines do not provide screening levels for this type of project so it is necessary to conduct an analysis using the Road Construction Emissions Model (RoadMod), Version 8.1.0, per Air Quality Guidelines recommendations for linear pipeline projects.

The BAAQMD's thresholds are presented below with a comparison to modeled project construction-related emissions generated utilizing the RoadMod model. Emissions shown below assume non mitigated emissions with an approximately six to nine month construction period.

BAAQMD Thresholds of Significance		**Project Emissions**
Criteria Air Pollutants & Precursors	**Construction-related Average Daily Emissions (lb/day)**	**RoadMod Construction Emission Estimates (lb/day)**
Reactive Organic Gases (ROG)	54	4.24
Nitrous Oxides (NOx)	54	43.28
Particulate Matter (PM10)	82 (exhaust only)	2.20
Particulate Matter (PM2.5)	54 (exhaust only)	1.91

As shown in the table above, the project's construction-related emissions are modeled to be lower than the BAAQMD's thresholds of significance. Based on the above, emissions associated with project construction are considered to be less than significant. Project operational emissions would be essentially unchanged due to the replacement and improvement nature of the project.

Construction activities associated with the project have the potential to create localized short-term dust impacts, PM10 and PM2.5. Mitigation Measure AQ1 includes feasible control measures and reduces such impacts to a less than significant level, as recommended by the BAAQMD's Basic Construction Mitigation Measures.

c. Would the project expose sensitive receptors to substantial pollutant concentrations?

As a water infrastructure improvement project for an existing water system, operation of the project would not alter air quality in any appreciable way. During the construction phase of the project, generation of dust and equipment exhaust can be expected to increase. A portion of this dust would contain PM10 and PM2.5, which are criteria air pollutants regulated at both the federal and state levels. Diesel particulate matter would be emitted by construction equipment and trucks. Equipment operation and trucks also emit nitrogen oxides during construction that contribute to regional ozone levels.

Although demolition, grading, and construction activities would be temporary, they would have the potential to cause both nuisance and health air quality impacts. PM10 is the pollutant of greatest concern associated with dust and the MCAQMD is designated as nonattainment for PM10. If uncontrolled, PM10 levels downwind of actively disturbed areas could possibly exceed state standards. Construction activities in the project area could impact residents within and adjacent to the community. To mitigate

[7] *California Environmental Quality Act Air Quality Guidelines*. Bay Area Air Quality Management District. May 2017.

air quality impacts associated with exposing sensitive receptors to substantial pollutant concentrations to less than significant levels, Mitigation Measure AQ-1 shall be implemented.

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people??

The project would not create objectionable odors or other emissions. The project includes new and replacement water distribution pipeline that are not associated with creation of odors.

Cumulative Impacts

There are no adverse cumulative environmental impacts to air quality resulting from implementation of the proposed project.

Mitigation Measures

AQ1

The following Feasible Control Measures, as described by the Bay Area Air Quality Management District, shall be implemented during construction to minimize fugitive dust and emissions:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day or be covered.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed or stabilized as soon as possible. Building slabs shall be poured as soon as possible after grading unless seeding or soil binders are used to stabilize the pad.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the District regarding dust complaints. This person shall respond and take corrective action within 48 hours. The MCAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

IV BIOLOGICAL RESOURCES

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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 (CDFW) or U.S. Fish and Wildlife Service (USFWS)?	□	■	□	□
b. Would the project 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. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	□	■	□	□
d. Would the project 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. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	□	□	□	■
f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	□	□	□	■

Overview

On August 5, 2019 WRA, Inc. performed an assessment of biological resources for the project[8]. Potentially sensitive biological resources within close proximity of the proposed water mains and each location of the proposed flush-outs and meter replacements were assessed. The project area is along/parallel to existing developed roadways, within developed residential parcels, and County easements within the Work Areas. The Work Areas extend from Las Brisas Subdivision in the south to Fisher Lake Drive.

[8] Biological Resources Assessment—Redwood Valley Water Infrastructure Retrofit Project. WRA, Environmental Consultants. August 2019.

The purpose of the assessment was to gather information necessary to identify potential biological constraints of the proposed project. WRA's report describes the results of the site visit, which assessed the project area for the (1) potential to support special-status species; and (2) presence of other sensitive biological resources protected by local, state, and federal laws and regulations. Excerpts of WRA's report are contained in this section.

Regulatory Background

The following sections explain the regulatory context of the biological assessment, including applicable laws and regulations that were applied to the field investigations and analysis of potential project impacts.

SENSITIVE BIOLOGICAL COMMUNITIES

Sensitive biological communities include habitats that fulfill special functions or have special values, such as wetlands, streams, or riparian habitat. These habitats are protected under federal regulations such as the Clean Water Act; state regulations such as the Porter-Cologne Act, the California Department of Fish and Wildlife (CDFW) Streambed Alteration Program, and CEQA; or local ordinances or policies such as city or county tree ordinances, Special Habitat Management Areas, and General Plan Elements.

Water of the US

The U.S. Army Corps of Engineers (USACE) regulates "Waters of the United States" under Section 404 of the Clean Water Act. Waters of the U.S. are defined in the Code of Federal Regulations (CFR) as waters susceptible to use in commerce, including interstate waters and wetlands, all other waters (intrastate waterbodies, including wetlands), and their tributaries (33 CFR 328.3).

Potential wetland areas, according to the three criteria used to delineate wetlands as defined in the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), are identified by the presence of (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. Areas that are inundated at a sufficient depth and for a sufficient duration to exclude growth of hydrophytic vegetation are subject to Section 404 jurisdiction as "other waters" and are often characterized by an ordinary high water mark (OHWM). Other waters, for example, generally include lakes, rivers, and streams. The placement of fill material into Waters of the U.S generally requires an individual or nationwide permit from the USACE under Section 404 of the Clean Water Act.

Waters of the State

The term "Waters of the State" is defined by the State of California's Porter-Cologne Water Quality Control Act as "any surface water or groundwater, including saline waters, within the boundaries of the state." The Regional Water Quality Control Board (RWQCB) protects all waters in its regulatory scope and has special responsibility for wetlands, riparian areas, and headwaters. These waterbodies have high resource value, are vulnerable to filling, and are not systematically protected by other programs. RWQCB jurisdiction includes "isolated" wetlands and waters that may not be regulated by the USACE under Section 404. Waters of the State are regulated by the RWQCB under the State Water Quality Certification Program which regulates discharges of fill and dredged material under Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. Projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact Waters of the State, are required to comply with the terms of the Water Quality

Certification determination. If a proposed project does not require a federal permit, but does involve dredge or fill activities that may result in a discharge to Waters of the State, the RWQCB has the option to regulate the dredge and fill activities under its state authority in the form of Waste Discharge Requirements.

Streams, Lakes, and Riparian Habitat

Streams and lakes, as habitat for fish and wildlife species, are subject to jurisdiction by CDFW under Sections 1600-1616 of California Fish and Game Code. Alterations to or work within or adjacent to streambeds or lakes generally require a 1602 Lake and Streambed Alteration Agreement. The term "stream", which includes creeks and rivers, is defined in the California Code of Regulations (CCR) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life [including] watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (14 CCR 1.72). In addition, the term "stream" can include ephemeral streams, dry washes, watercourses with subsurface flows, canals, aqueducts, irrigation ditches, and other means of water conveyance if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife. "Riparian" is defined as "on, or pertaining to, the banks of a stream." Riparian vegetation is defined as "vegetation which occurs in and/or adjacent to a stream and is dependent on, and occurs because of, the stream itself". Removal of riparian vegetation also requires a Section 1602 Lake and Streambed Alteration Agreement from CDFW.

Other Sensitive Biological Communities

Other sensitive biological communities not discussed above include habitats that fulfill special functions or have special values. Natural communities considered sensitive are those identified in local or regional plans, policies, regulations, or by CDFW. CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in its California Natural Diversity Database. Sensitive plant communities are also identified by CDFW. CNDDB vegetation alliances are ranked 1 through 5 based on NatureServe's (2010) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive. Impacts to sensitive natural communities identified in local or regional plans, policies, or regulations or those identified by the CDFW or U.S. Fish and Wildlife Service (USFWS) must also be considered and evaluated under CEQA (CCR Title 14, Div. 6, Chap. 3, Appendix G). Specific habitats may also be identified as sensitive in city or county general plans or ordinances.

RELEVANT LOCAL POLICIES, ORDINANCES, REGULATIONS

Mendocino County General Plan

Policy RM-28: All discretionary public and private projects that identify special-status species in a biological resources evaluation shall avoid impacts to special-status species and their habitat to the maximum extent feasible. Where impacts cannot be avoided, projects shall include the implementation of site-specific or project-specific effective mitigation strategies developed by a qualified professional in a consultation with state or federal resource agencies with jurisdiction including, but no limited to, the following strategies:

- Preservation of habitat and connectivity of adequate sized, quality and configuration to support the special-status species. Connectivity shall be determined based on the specifics of species' needs.

- Provision of supplemental planting and maintenance of grasses, shrubs, and trees of similar quality and quantity to provide adequate vegetation cover to enhance water quality, minimize sedimentation and soil transport, and provide adequate shelter and food for wildlife
- Provide protection for habitat and the known locations of special-status species through adequate buffering or other means.
- Provide replacement habitat of like quantity and quality on- or off-site for special status species
- Enhance existing special-status species habitat values through restoration and replanting of native plant species
- Provision of temporary or permanent buffers of adequate size (based on the specifics of the special-status species) to avoid nest abandonment by nesting migratory birds and raptors associated with construction and site development activities
- Incorporation of the provisions or demonstrations of compliance with applicable recovery plans for federally listed species

Action Item RM-28-1: The County shall develop CEQA standards that require disclosure of impacts to all sensitive biotic communities during review of discretionary projects. These standards shall require the following mitigation:

Sensitive Biotic Communities: For all sensitive biotic communities, restore or create habitat at no net loss standard of habitat value lost. Where it is determined that restoration or creation are ecologically infeasible, preserve at a 2:1 ratio for habitat loss.

Oak Woodland: Maintain and improve oak woodland habitat to provide for slope stabilization, soil protection, species diversity and wildlife habitat through the following measures:

- Preserve to the maximum extent feasible, oak trees and other vegetation that occur near the heads of drainages or depressions to maintain diversity of vegetation type and wildlife habitat as part of agricultural projects
- Comply with the Oak Woodlands Preservation Act regarding oak woodland preservation to conserve the integrity and diversity of oak woodlands and retain to the maximum extent feasible, existing oak woodland and chaparral communities and other significant vegetation as part of residential commercial and industrial approvals.
- Provide appropriate replacement of lost oak woodlands or preservation at a 2:1 ratio for habitat loss

Policy RM-29: All public and private discretionary projects shall avoid impacts to wetlands if feasible. If avoidance is not feasible, projects shall achieve no net loss of wetlands, consistent with state and federal regulations

Policy RM-31: For the purposes of implementing this General Plan, the County defines "special-status species" and "sensitive biotic communities" to include all species and habitat identified as such by the California Department of Fish and Game [now CA Dept. of Fish and Wildlife], U.S. Fish and Wildlife Service or NOAA fisheries.

Sensitive Special-Status Species

Special-status species include those plants and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the Federal Endangered Species Act (ESA) or California Endangered Species Act (CESA). These acts afford protection to both listed species and those that are formal candidates for listing. The federal Bald and Golden Eagle Protection Act also provides broad protections to both eagle species that in some regards are similar to those provided by ESA. Additionally, CDFW Species of Special Concern, CDFW California Fully Protected species, and USFWS Birds of Conservation Concern are all considered special-status species. Although these aforementioned species generally have no special legal status, they are given special consideration under CEQA. Bat species are also evaluated for conservation status by the Western Bat Working Group (WBWG), a non-governmental entity; bats named as a "High Priority" or "Medium Priority" species for conservation by the WBWG are typically considered special-status and also considered under CEQA. In addition to regulations for special-status species, most native birds in the United States (including non-status species) are protected by the federal Migratory Bird Treaty Act of 1918 (MBTA) and the California Fish and Game Code (CFGC), i.e., sections 3503, 3503.5 and 3513. Under these laws, intentionally destroying active bird nests, eggs, and/or young is illegal.

Plant species on the California Native Plant Society (CNPS) Rare and Endangered Plant Inventory (Inventory) with California Rare Plant Ranks (Rank) of 1 and 2 are also considered special-status plant species and must be considered under CEQA.

METHODS

On August 5, 2019 the project area was traversed on foot to determine (1) plant communities present within the project area, (2) if existing conditions provided suitable habitat for any special-status plant or wildlife species, and (3) if sensitive habitats are present. The project area assessed includes the footprint and vicinity of the proposed water mains and each location of the proposed flush-outs and meter replacements.

Prior to the site visit, the Soil Survey of Mendocino County, Western Part (USDA 1999), USFWS National Wetland Inventory (NWI), and U.S. Geological Service 7.5-minute topographic quadrangles, were examined to determine if any unique soil types that could support sensitive plant communities and/or aquatic features were present in the project area. Biological communities present in the project area were classified based on existing plant community descriptions described in the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) and Manual of California Vegetation-Online Edition (CNPS 2019b). However, in some cases it is necessary to identify variants of community types or to describe non-vegetated areas that are not described in the literature. Biological communities were classified as sensitive or non-sensitive as defined by CEQA and other applicable laws and regulations.

Wetlands and Waters

The project area was surveyed by WRA to determine if any wetlands and waters potentially subject to jurisdiction by the USACE, RWQCB, or CDFW were present. Any potential wetland areas were identified as areas dominated by plant species with a wetland indicator status1 of OBL, FACW, or FAC as given on the U.S. Army Corps of Engineers National Wetlands Plant List. Evidence of wetland hydrology can include direct evidence (primary indicators), such as visible inundation or saturation, algal mats, and oxidized root channels, or indirect (secondary) indicators, such as a water table within two feet of the soil surface during the dry season. Some indicators of wetland soils include dark colored soils, soils with a sulfidic odor, and soils

that contain redoximorphic features as defined by the Corps Manual and Field Indicators of Hydric Soils in the United States.

The preliminary Waters assessment was based primarily on the presence of unvegetated, ponded areas or flowing water, or evidence indicating their presence such as a high water mark or a defined drainage course. Collection of additional data would be necessary to prepare a delineation report suitable for submission to the USACE.

Other Sensitive Biological Communities

The project area was evaluated for the presence of other sensitive biological communities, including riparian areas, sensitive plant communities recognized by CDFW and the Mendocino County General Plan Prior to the site visit, aerial photographs, local soil maps, and A Manual of California Vegetation, Online Edition were reviewed to assess the potential for sensitive biological communities to occur in the project area. All alliances within the project area with a ranking of 1 through 3 were considered sensitive biological communities and mapped.

SPECIAL-STATUS SPECIES

Potential occurrence of special-status species in the project area was evaluated by first determining which special-status species occur in the vicinity of the project area through a literature and database search. Database searches for known occurrences of special-status species focused on the Redwood Valley 7.5 minute USGS quadrangle and the eight surrounding USGS quadrangles. The following sources were reviewed to determine which special-status plant and wildlife species have been documented to occur in the vicinity of the project area:

- California Natural Diversity Database (CNDDB) records (CDFW 2019)
- USFWS Information for Planning and Conservation Species Lists (USFWS 2019b)
- CNPS Rare Plant Inventory (CNPS 2019a)
- California Consortium of Herbaria (CCH) (CCH 2019)
- Potential Biological Impacts Review Technical Memo (LACO 2018)
- Soil Survey of Mendocino County, Western Part (USDA 1999)
- CDFG publication "California's Wildlife, Volumes I-III" (Zeiner et al. 1990)
- CDFG publication California Bird Species of Special Concern (Shuford and Gardali 2008)
- CDFW and University of California Press publication California Amphibian and Reptile Species of Special Concern (Thomson et al. 2016)
- A Field Guide to Western Reptiles and Amphibians (Stebbins 2003)
- National Marine Fisheries Service Distribution Maps for California Salmonid Species (2013)

A site visit was made to the project area to search for suitable habitats for special-status species. Habitat conditions observed at the project area were used to evaluate the potential for presence of special-status species based on these searches and the professional expertise of the investigating biologists. The potential for each special-status species to occur in the project area was then evaluated according to the following criteria:

- No Potential. Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- Unlikely. 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.
- Present. Species is observed on the site or has been recorded (i.e. CNDDB, other reports) on the site recently.

The site assessment was intended to identify the presence or absence of suitable habitat for each special-status species known to occur in the vicinity in order to determine its potential to occur in the project area. The site visit does not constitute a protocol-level survey and is not intended to determine the actual presence or absence of a species.

Analysis

a. Would the project 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 (CDFW) or U.S. Fish and Wildlife Service (USFWS)?

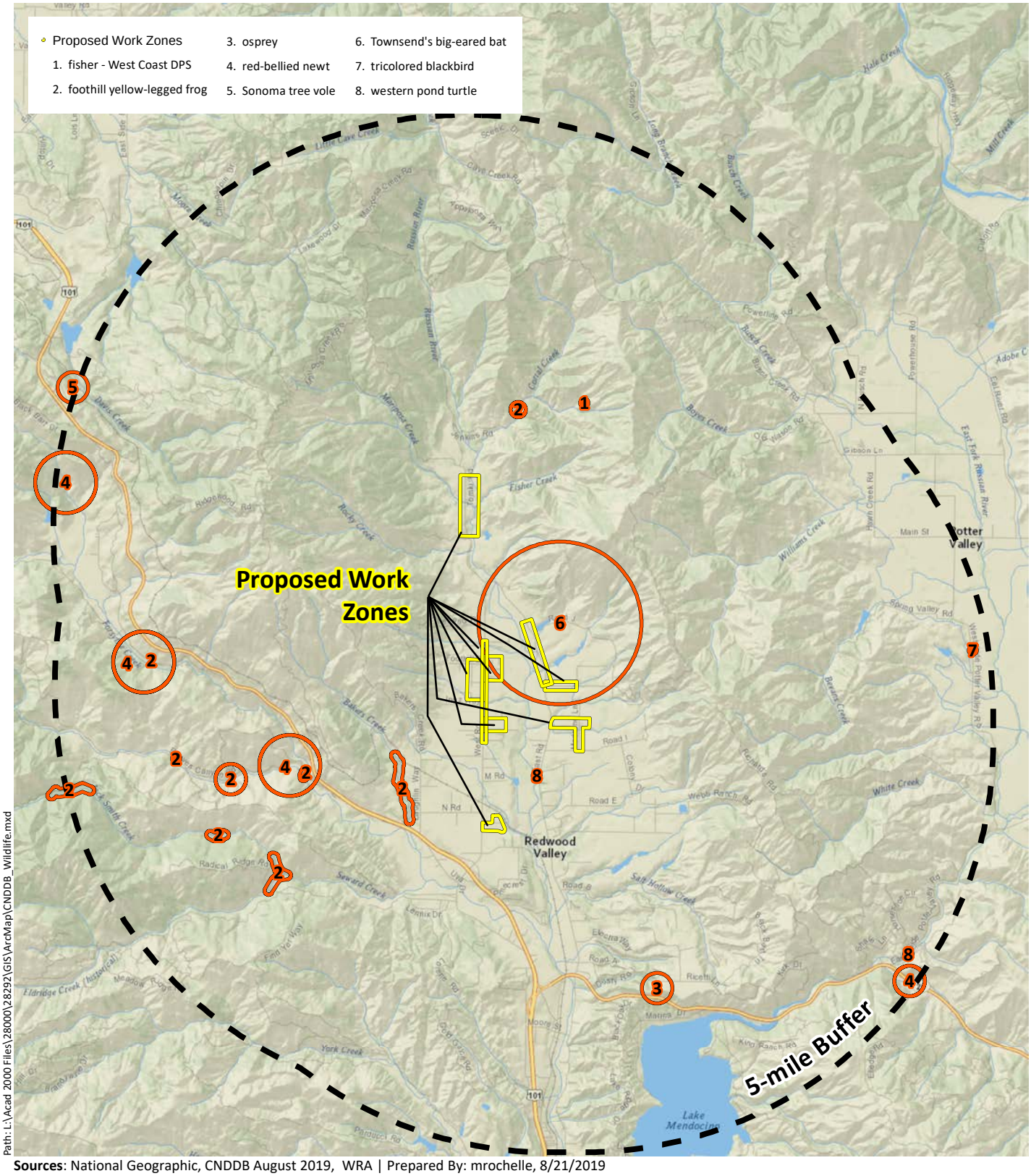
Results of WRA's biological assessment specific to special-status species are contained below.

Special-Status Plants

All plant species encountered were recorded. Plant nomenclature follows the Jepson Flora Project (2019), except where noted. For cases in which regulatory agencies, CNPS, or other entities base rarity on older taxonomic treatments, precedence was given to the treatment used by those entities.

Based upon a review of the resources and databases 33 special-status plant species have been documented in the vicinity of the project area, shown on Figure 14. No special-status plant species were observed during the assessment site visit. One of the 33 special-status species known to occur in the vicinity has potential to occur in the project area. The remaining 32 have no potential to occur in the project area due to the following:

- Hydrologic conditions (e.g., tidal, vernal pool) necessary to support the special-status plant species are not present in the project area;
- Edaphic (soil) conditions (e.g., volcanic tuff, serpentine) necessary to support the special-status plant species are not present in the project area;
- Topographic conditions (e.g., north-facing slope, montane) necessary to support the special-status plant species are not present in the project area;



Sources: National Geographic, CNDDB August 2019, WRA | Prepared By: mrochelle, 8/21/2019

Figure 14 Special-Status Wildlife Species Documented within 5-miles of the Proposed Work Zones

MCDT Redwood Valley Water Infrastructure
Mendocino County, California

0 1 2 Miles

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- Unique pH conditions (e.g., alkali scalds, acidic bogs) necessary to support the special-status plant species are not present in the project area;
- Associated natural communities (e.g., interior chaparral, conifer forest) necessary to support the special-status plant species are not present in the project area;
- The project area is geographically isolated (e.g. below elevation, coastal environ) from the documented range of the special-status plant species;
- Land use history and contemporary management (e.g., grading, intensive grazing) has degraded the localized habitat necessary to support the special-status plant species.

The one special-status plant with potential to occur in the project area is congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*).

Congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *congesta*); CRPR 1B.2. Moderate Potential. Congested-headed tarplant is an annual herb in the sunflower family (Asteraceae) that blooms from April to November. It typically occurs in grassy areas and fallow fields in coastal scrub, and valley and foothill grassland at elevations ranging from 65 to 1,840 feet. Known associated species include coast live oak, white hyacinth (*Triteleia hyacinthina*), Italian rye grass (*Festuca perennis*), little rattlesnake grass (*Briza minor*), pennyroyal (*Mentha pulegium*), and spiny-fruited buttercup (*Ranunculus muricatus*).

Congested-headed tarplant is known from 32 USGS 7.5-minute quadrangles in Lake, Marin, Mendocino, San Francisco, San Mateo, and Sonoma counties. There is one CNDDB record within Mendocino County, and 10 CCH records from Mendocino County. The most recent documented occurrence is from 1990 on Highway 28 near the intersection with Highway 253, approximately 20 miles south west of the project area. The nearest documented occurrence is from 1985 along Feliz Creek Road near Hopland, approximately 19 miles south of the Study Area. Congested-headed tarplant has a moderate potential to occur in the grassland areas of the project area due to the presence of associated species and suitable substrate and it's tolerance to disturbed areas.

Federally Listed Special-Status Plant Species in the Vicinity of the project area

There are four federally listed plant species which occur within the vicinity of the project area and are described below. None of the species have the potential to occur within the project area.

Sonoma sunshine (*Blennosperma bakeri*) Federal Endangered, State Endangered, CRPR 1B. No Potential. Sonoma sunshine is an annual herb in the sunflower family (Asteraceae) that blooms from March to May. It typically occurs on heavy clay soils in vernally wet areas in vernal pool, and valley and foothill grassland habitat. This species is an obligate (OBL) wetland plant, and is restricted to vernal pool habitat. Known associated species include semaphore grass (*Pleuropogon californicus*), bractless hedge hyssop (*Gratiola ebracteata*), Douglas' mesamint (*Pogogyne douglasii*), calico flowers (*Downingia* spp.), stipitate (*Plagiobothrys stipitatus*), goldfields (*Lasthenia bakeri, L. glaberrima*), seep monkeyflower (*Mimulus guttatus*), lady's-thumb (*Polygonum persicaria*), tidy tips (*Layia platyglossa*), wild hyacinth (*Triteleia hyacinthina*), meadowfoams (*Limnanthes douglasii*, *L. vinculans*), and non-native annual grasses.

Sonoma sunshine is known from nine USGS 7.5-minute quadrangles in Sonoma and Mendocino County. There is one CNDDB records in the greater vicinity of the project area, and no CCH records from Mendocino County. The nearest known record is from 2018, located approximately 2 miles west of the project area near Highway 101. Sonoma sunshine has a no potential to occur in the project area due to the absence of vernal pools and native grassland habitat, and the absence of associated species.

Burke's goldfields (*Lasthenia burkei*) Federal Endangered, State Endangered, CRPR 1B. No Potential. Burke's goldfields are annual herbs in the sunflower family (Asteraceae) that bloom from April to June. It typically occurs in mesic portions of pools and swales in meadow, seep, and vernal pool habitat at elevations ranging from 45 to 1970 feet. This species is an obligate (OBL) wetland plant, and is restricted to vernal pool habitat. Known associated species include Italian rye grass (*Festuca perennis*), Mediterranean barley (*Hordeum marinum*), semaphore grass (*Pleuropogon californicus*), California oat grass (*Danthonia californica*), meadow foam (*Limnanthes douglasii, L. vinculans*), goldfields (*L. glaberrima, L. californica, L. glabrata*), and rushes (*Juncus* spp.).

Burke's goldfields are known from twelve USGS 7.5-minute quadrangles in Lake, Mendocino, Napa, and Sonoma Counties. There is one CNDDB record in the greater vicinity of the project area, and three CCH records from Mendocino County. The nearest documented occurrence is from 2010 at the southwest end of Lake Mendocino, approximately 6 miles south of the project area. Burke's goldfields has no potential to occur in the project area due to the absence of vernal pool habitat and known associated species.

Contra Costa goldfields (*Lasthenia conjugens*) Federal Endangered, CRPR 1B. No Potential Contra Costa goldfields are annual herbs in the sunflower family (Asteraceae) that bloom from March to June. It typically occurs in vernally saturated areas in pools, depressions, and swales of open grassy areas in valley and foothill grassland, vernal pool, and cismontane woodland habitat at elevations ranging from 0 to 470 feet. This species is a facultative wetland (FACW) plant, and is restricted to vernal pool habitat (VPI). Known associated species include Italian rye grass, Mediterranean barley, woolly marbles (*Psilocarphus* spp.), stipitate popcornflower (*Plagiobothrys stipitatus*), legenere (*Legenere limosa*), smooth goldfields (*Lasthenia glaberrima*), yellow rayed goldfields (*Lasthenia glabrata*), semaphore grass (*Pleuropogon californicus*), calico flowers (*Downingia* spp.), and brass buttons.

Contra Costa goldfields are known from 15 USGS 7.5-minute quadrangles in Alameda, Contra Costa, Marin, Monterey, Napa, Solano, and Sonoma Counties. The only known Mendocino County occurrence is near Manchester and believed to be extirpated. There are no CNDDB records in the greater vicinity of the project area, and one CCH and CNDDB record from Mendocino County. The nearest known occurrence is from May 1937, approximately 33 miles west of the project area in Manchester (CDFW 2019). Contra Costa goldfields have no potential to occur in the project area due to the absence of vernally saturated areas in grassy sites and the absence of associated species.

Showy rancheria clover (*Trifolium amoenum*). Federal Endangered, CRPR 1B. No Potential Showy rancheria clover is an annual forb in the pea family (Fabaceae) that blooms from April to June. It typically occurs on open, sunny sites, in swales, on roadsides, and cliffs sometimes underlain by serpentine substrate in valley and foothill grassland and coastal bluff scrub habitat at elevations ranging from 15 to 1365 feet. This species is a facultative wetland (FACW) plant, and has a serpentine affinity rank of weak indicator (1.3). Known associated species slender oat grass, bromes (*Bromus* spp.), fescues (*Festuca* spp.), Italian rye grass, California oat grass, California brome (*Bromus carinatus*), meadow barley (*Hordeum brachyantherum*), Italian thistle (*Carduus pycnocephalus*), and pale flax (*Linum bienne*).

Showy Rancheria clover is known from 4 USGS 7.5-minute quadrangles in Marin and San Mateo counties. There are no CNDDB records in the greater vicinity of the project area, and no CCH records from Mendocino County. The nearest documented occurrence is from May 1929 in Santa Rosa. Showy Rancheria clover has no potential to occur in the project area due to absence of known occurrences within the County and the only recent occurrences being located within coastal Marin County.

Potential Impacts to Plants

Of the 33 special-status plant species documented from the vicinity of the project area, one species (congested-headed tarplant) has the potential to occur within grassland portions of the project area. The congested-headed tarplant may fall under the jurisdiction of the CDFW under CEQA as a special-status species but it would not be under the jurisdiction of either the USFWS under the ESA or CDFW under the CESA. To avoid potential impacts to congested-headed tarplant, mitigation measure BIO 1 requires preconstruction surveys in non-disturbed areas that would be impacted by the project.

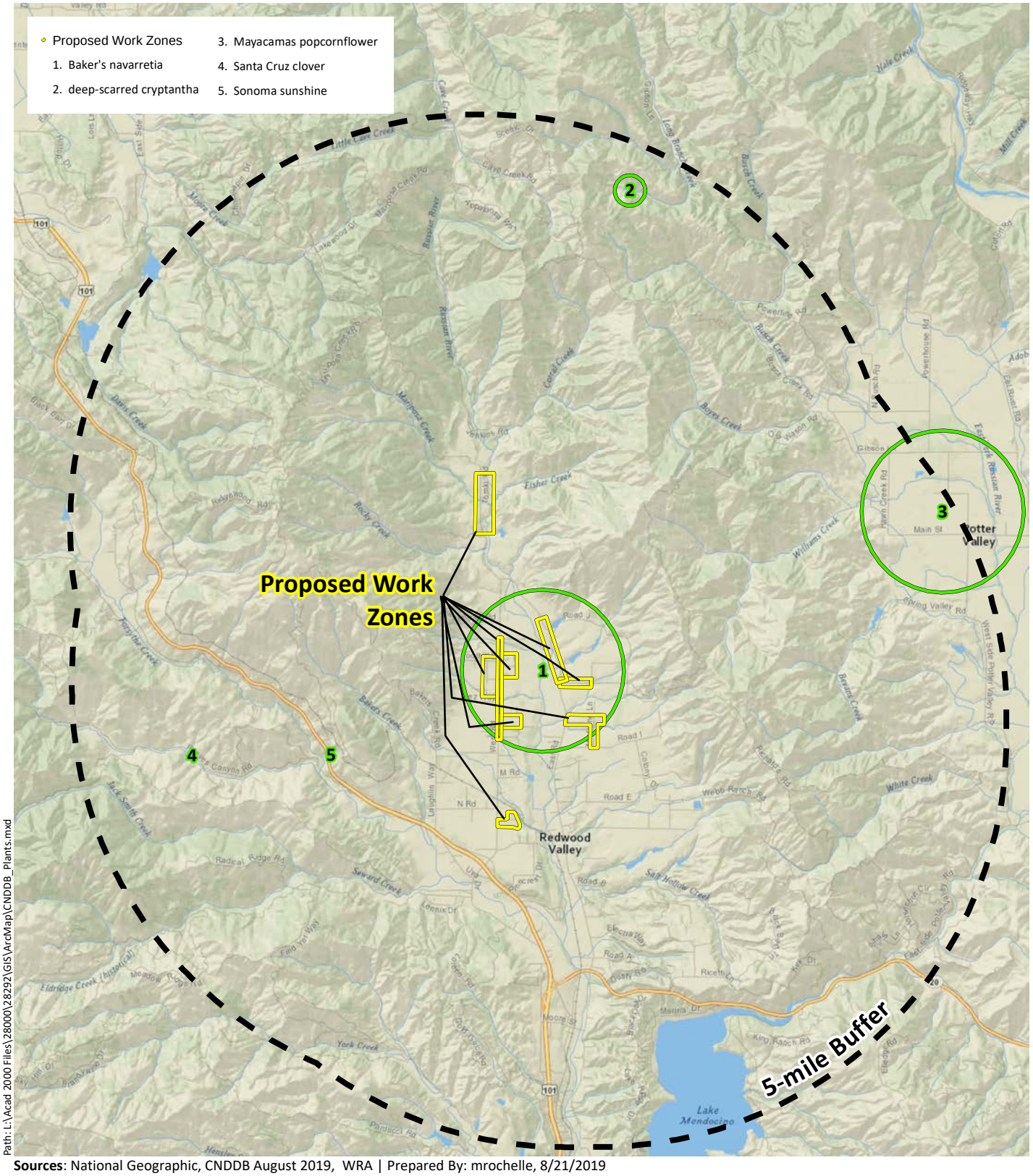
Special Status Wildlife

Based upon a review of the resources databases, 21 special-status species of wildlife have been documented in the vicinity of the project area. Figure 15 depicts the locations of documented special-status wildlife in the CNDDB occurring within a five mile radius of the project area. Six special-status wildlife species were determined to have moderate or high potential to occur in the project area due to presence of stream habitat. The remaining 15 special-status wildlife species are unlikely to occur in the project area for one or more of the following reasons:

- The project area is outside of the known or historical range of the species;
- The project area lacks suitable aquatic habitat (e.g., lakes, vernal pools);
- The project area lacks suitable foraging habitat (e.g., marshes);
- The project area lacks suitable tall nesting structures (e.g., cliffs or snags);
- The project area is along/parallel to existing developed roadways and within developed residential parcels subject to regular anthropogenic disturbance;
- The project area lacks suitable soil for den development;
- No mine shafts, caves or abandoned buildings are present;
- There is a lack of connectivity with suitable habitat.

Foothill yellow-legged frog (*Rana boylii*). State Candidate, CDFW Species of Special Concern. The foothill yellow-legged frog historically occurred in coastal and mountain streams from southern Oregon to Los Angeles County, but has declined in many parts of this range. This species is strongly associated with rivers and creeks, and prefers shallow, flowing water with a rocky substrate. Individuals do not typically move overland and are rarely observed far from a source of permanent water. In northern California, it was observed adults were on average within ten feet and rarely over 40 feet from the stream. Although upland habitat usage is not well studied, the data suggest that movements away from water are related to flood events. Frogs in intermittent drainages may move more than those in perennial but movements are within the creek corridors. There were opportunistic observations that coastal yellow-legged frogs may use upland habitats in winter; however, this has not been supported by data and these movements away from water into terrestrial habitat are likely in response to high flows and flood events. Aquatic breeding sites are often near stream confluences, with egg masses typically deposited behind or sometimes under rocks in low-flow areas with cobble and/or gravel.

Area G (Madrone Drive) within the project area contains shallow, rocky streams which may support this species during periods of flow (Figure 16C). This species has been documented in Forsythe Creek and Bakers Creek, approximately 1 mile west of the project area.



Sources: National Geographic, CNDDB August 2019, WRA | Prepared By: mrochelle, 8/21/2019

Figure 15 Special-Status Plant Species Documented within 5-miles of the Propsed Work Zones

MCDT Redwood Valley Water Infrastructure
Mendocino County, California

0 1 2 Miles

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Western pond turtle (*Actinemys marmorata*), CDFW Species of Special Concern. The western pond turtle (WPT) is the only native freshwater turtle in California. This turtle is uncommon to common in suitable aquatic habitat throughout California, west of the Sierra-Cascade crest and Transverse Ranges. Western pond turtle inhabits annual and perennial aquatic habitats, such as coastal lagoons, lakes, ponds, marshes, rivers, and streams from sea level to 5,500 feet in elevation. Pond turtle also occupies man-made habitats such as stock ponds, wastewater storage, percolation ponds, canals, and reservoirs. This species requires low-flowing or stagnant freshwater aquatic habitat with suitable basking structures, including rocks, logs, algal mats, mud banks and sand. Warm, shallow, nutrient-rich waters are ideal as they support WPT prey items, which include aquatic invertebrates and occasionally fish, carrion, and vegetation. Turtles require suitable aquatic habitat for most of the year; however, WPT often occupies creeks, rivers, and coastal lagoons that become seasonally unsuitable. To escape periods of high water flow, high salinity, or prolonged dry conditions, WPT may move upstream and/or take refuge in vegetated, upland habitat for up to four months. Although upland habitat is utilized for refuging and nesting, this species preferentially utilizes aquatic and riparian corridors for movement and dispersal. Western pond turtle nests from late April through July. This species requires open, dry upland habitat with friable soils for nesting and prefer to nest on unshaded slopes within 15 to 330 feet of suitable aquatic habitat. Females venture from water for several hours in the late afternoon or evening during the nesting season to excavate a nest, lay eggs, and bury the eggs to incubate and protect them. Nests are well-concealed, though native mammals are occasionally able to locate and predate upon eggs. Hatchlings generally emerge in late fall but may overwinter in the nest and emerge in early spring of the following year.

Western pond turtle has been documented in the west fork of the Russian River within 1 mile of the project area. The project area contains shallow streams with pools which may support western pond turtle.

Coho salmon - Central California Coast ESU (*Oncorhynchus kisutch*), Federal Endangered, State Endangered. The Central California Coast ESU includes all naturally spawned populations of coho salmon (and their progeny) in California streams from the Eel River to Aptos Creek, including the Russian River and its tributaries, excluding the Sacramento-San Joaquin River Basin. Coho salmon typically migrate in late fall to early winter to spawn in smaller coastal streams. Spawning migration known as "runs" occur throughout the year. Spawning occurs mainly between November and January, but can occur as late as March during drought conditions. Juveniles may spend several years in the freshwater habitat before migrating to the ocean. Most adult fish return "home" maintaining fidelity to their natal stream. Preferred spawning habitat for coho salmon is small freshwater streams with cool to cold water temperature, medium to small gravel substrate, and high dissolved oxygen levels at the head of a riffle where water changes from laminar flow to turbulent flow (providing greater dissolved oxygen). Abundant riffle areas (shallow areas with gravel substrate) for spawning and deeper pools with sufficient riparian cover for rearing are necessary for successful breeding. Coho salmon have been documented in the Russian River and may be present in its tributaries within the project area.

Chinook salmon - California Coastal ESU (*Oncorhynchus tshawytscha*), Federal Threatened, State Threatened. The California Coastal (CC) Chinook salmon ESU includes all naturally spawned populations of Chinook salmon from rivers and streams south of the Klamath River (exclusive) to the Russian River (inclusive). Chinook salmon are anadromous (adults migrate from a marine environment into the fresh water streams and rivers of their birth) and semelparous (spawn only once and then die). They move upstream and enter tributary streams from February through July, peaking in May-June. These fish migrate into the headwaters, hold in pools until they spawn, starting as early as mid-August and ending in mid-October, peaking in September. They are fairly faithful to the home streams in which

they were spawned, using visual and chemical cues to locate these streams. While migrating and holding in the river, spring chinook do not feed, relying instead on stored body fat reserves for maintenance and gonadal maturation. Eggs are laid in large depressions (redds) hollowed out in gravel beds. Some fish remain in the stream until the following October and emigrate as "yearlings," usually with the onset of storms starting in October through the following March, peaking in November-December. Large pools with cold water are essential over-summering habitat for this species. Chinook salmon have been documented in the Russian River and may be present in its tributaries within the project area.

Steelhead - Central California Coast DPS (*Oncorhynchus mykiss irideus*), Federal Threatened. The Central California Coast DPS includes all naturally spawned populations of steelhead (and their progeny) in California streams from the Russian River to Aptos Creek, and the drainages of San Francisco and San Pablo Bays eastward to the Napa River (inclusive), excluding the Sacramento-San Joaquin River Basin. Steelhead typically migrate to marine waters after spending two years in freshwater, though they may stay up to seven. They then reside in marine waters for 2 or 3 years prior to returning to their natal stream to spawn as 4-or 5-year-olds. Steelhead adults typically spawn between December and June. In California, females typically spawn two times before they die. Preferred spawning habitat for steelhead is in perennial streams with cool to cold water temperatures, high dissolved oxygen levels and fast flowing water. Abundant riffle areas (shallow areas with gravel or cobble substrate) for spawning and deeper pools with sufficient riparian cover for rearing are necessary for successful breeding. Steelhead have been documented in the Russian River and may be present in its tributaries within the project area.

Russian River tule perch (*Hysterocarpus traskii pomo*), CDFG Species of Special Concern. Russian River Tule Perch is a subspecies of Tule Perch (*Hysterocarpus traskii*) which occurs only in the Russian River and its lower tributaries. Tule perch are the only freshwater surfperch and are native to rivers and estuaries of central California. Tule perch are small (up to 15 cm) with a definite hump shape between the head and dorsal fin. Their color varies, with bluish or purplish cast backs, a whitish or yellowish belly, and a barred pattern on the sides. They inhabit lowland lakes, sloughs, streams, and rivers, generally in areas with beds of vegetation or overhangs. Their diet consists of small invertebrates sucked up from the bottom or in midwater. They generally gather in groups, and as with all surfperches, bear live young. Russian River tule perch have been documented in the Russian River and may be present in its tributaries within the project area.

Nesting Birds (Non-status), High Potential (Present). The project area contains vegetation (e.g., small ornamental trees, several mature native trees, shrubbery) that may be used as nesting habitat by bird species with legal baseline protections. Federal regulations (MBTA) and state regulations (CFGC) apply to a wide variety of native birds, including species that are non-migratory and/or commonly found in Marin County.

Federally-Listed Special-Status Wildlife Species in the Vicinity that are Unlikely to Occur in the project area

There are four federally listed wildlife species which occur within the vicinity of the project area and are described below. None of the species have the potential to occur within the project area.

California red-legged frog (*Rana draytonii*), Federal Threatened Species, CDFW Species of Special Concern. The California red-legged frog is dependent on suitable aquatic, estivation, and upland habitat. During periods of wet weather, starting with the first rainfall in late fall, red-legged frogs disperse away from their estivation sites to seek suitable breeding habitat. Aquatic and breeding habitat is characterized by dense, shrubby, riparian vegetation and deep, still or slow-moving water. Breeding occurs between

late November and late April. California red-legged frogs estivate (period of inactivity) during the dry months in small mammal burrows, moist leaf litter, incised stream channels, and large cracks in the bottom of dried ponds.

California red-legged has not been documented within 10 miles of the project area. In addition, the project area does not contain suitable still or slow-moving water with emergent vegetation to support breeding by this species.

Northern spotted owl (*Strix occidentalis caurina*). Federal Threatened, State Threatened, CDFW Species of Special Concern. Typical habitats consist of old-growth or otherwise mature coniferous forest and mixed coniferous-hardwood forest; younger (second-growth) forest with stands of large/mature trees may also be occupied. High-quality breeding habitat features a tall, multi-tiered, multi-species canopy dominated by big trees, trees with cavities and/or broken tops, and woody debris and space under the canopy. Substrates used as nest sites include tree cavities, epicormic branching (multiple branches forming from a single node), broken tree tops, large horizontal branches, and old nests built by other birds or squirrels.

The project area does not contain old growth conifer or mixed conifer forest or stands of trees with suitable structure to support this species. The majority of the project area is adjacent to roadsides, agriculture, or residential development with an open canopy.

Western snowy plover (*Charadrius nivosus (alexandrines) nivosus*), Federally Threatened, CDFW Species of Special Concern. USFWS Bird of Conservation Concern. Western snowy plovers breed primarily above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. Less common nesting habitats include bluff-backed beaches, dredged material disposal sites, salt pond levees, dry salt ponds, and river bars. Nests typically occur in flat, open areas with sandy or saline substrates where vegetation and driftwood are usually sparse or absent.

The project area does not contain beach, dune, or other sparsely vegetated open habitat to support nesting by this species. Western snowy plover has not been documented in the 10 miles surrounding the project area.

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), Federal Threatened, State Endangered Species, USFWS Bird of Conservation Concern. The western yellow-billed cuckoo is a summer visitor, occurring in California from about mid-May until early September. This species prefers mixed old growth riparian forests of willow and cottonwood, with an understory dense with blackberries and California wild grape. Western yellow-billed cuckoos require large, contiguous patches of multilayered riparian habitat for breeding. A canopy of trees including cottonwood, willow, alder (*Alnus* sp.), and other riparian woodland species combined with a dense, woody understory provides shade and traps moisture to provide cooler and more humid conditions for breeding. In California, this species is most likely to be found in patches of willow-cottonwood riparian forest greater than 200 acres in size. The Western yellow-billed cuckoo nests almost exclusively near water and may be restricted to moist river bottoms because of humidity requirements for breeding. The project area contains small patches of riparian habitat; the riparian habitat in the project area is not of suitable size, composition, or structure to support this species.

Of the 21 special-status wildlife species documented in the vicinity of the project area, six have potential to occur within the project area due to presence of intermittent stream (USGS blue-line) habitat. The project area has potential to support native nesting birds with baseline protections under CFGC and MBTA.

Potential Impacts to Animals

Streams within the project area have potential to support foothill yellow-legged frog, western pond turtle, coho salmon, chinook salmon, steelhead, and Russian River tule perch. The project has been designed to avoid all streams in the project area by crossing over or under existing culverts so no impact to streams or species they support occurs (appropriate erosion control measures will protect from runoff or erosion). In the event project design or field conditions change resulting in realignment and impacts to streams are unavoidable, the project shall obtain proper permits from USACE, CDFW and RWQCB.

The project area has potential to support native nesting birds with baseline protections under CFGC and MBTA that could be impacted by construction activities. Mitigation Measure BIO2 requires preconstruction nesting surveys to avoid impacts to nesting birds.

b. Would the project 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?

Non-sensitive biological communities in the project area include developed areas including roads and residential parcels, and non-native grasslands. Sensitive biological communities found in the project area include riparian forest and potential Waters and Wetlands of the U.S, including intermittent/ephemeral steams, roadside ditches, and seasonal wetlands. Descriptions for each biological community are provided below. Sensitive biological communities within the project area are shown in Figures 16A-D.

Non-Sensitive Biological Communities

Developed. Developed areas include areas which are significantly altered from their natural state through development or regular disturbance and/or maintenance. Developed areas within the project area include existing roads and driveways, existing bridges, and yards of private residences.

Non-native Grassland (several vegetation alliances). CDFW Rank: None. Non-native grasslands typically occur on fine textured soils throughout the valleys and foothills of California. This biological community is dominated by annual or perennial non-native and/or invasive grass species. Non-native grasslands within the project area are best described by various vegetation alliance types, including wild oats grassland (*Avena barbata* Herbaceous Semi-Natural Alliance) and annual brome grasslands (*Bromus* spp. Semi-Natural Alliance). Within the project area, the grasslands are dominated by wild oats (*Avena* spp.) and brome (*Bromus* spp.) with several other non-native plant species including hawkbit (*Leontodon saxatilis*), wild lettuce (*Lactuca* spp.), field bindweed (*Convolvulus arvensis*), birds foot trefoil (*Lotus corniculatus*), and ribwort (*Plantago lanceolata*). The few native species present include willow herb (*Epilobium brachycarpum*), turkey mullein (*Croton setiger*), and congested-headed hayfield tarplant (*Hemizonia congesta* ssp. *luzulifolia*). The non-native grasslands occur along roadsides and within County easements between properties. Within the project area, non-native grasslands are present along roadsides and County easements. At the time of the site visit, vegetation was predominantly mowed.

Figure 16A
Area A - Mountain River Ranch

MCDT Redwood Valley
Water Infrastructure
Mendocino County, California

- Proposed Work Zones
- Meter Replacements
- Proposed Flush-outs
- Proposed Water Mains

Potential Waters of the US/State

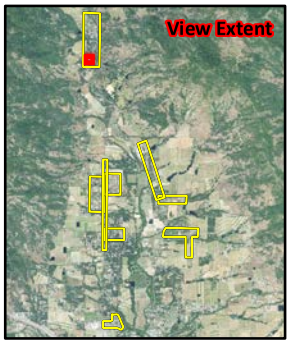
- Ephemeral Stream
- USGS Blue Line Stream
- Roadside Ditch

Potential Wetlands of US/State

- Seasonal Wetland

CDFW Section 1600 Riparian

- Riparian



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Sources: 2018 DigitalGlobe Aerial, WRA | Prepared By: mrochelle, 8/26/2019

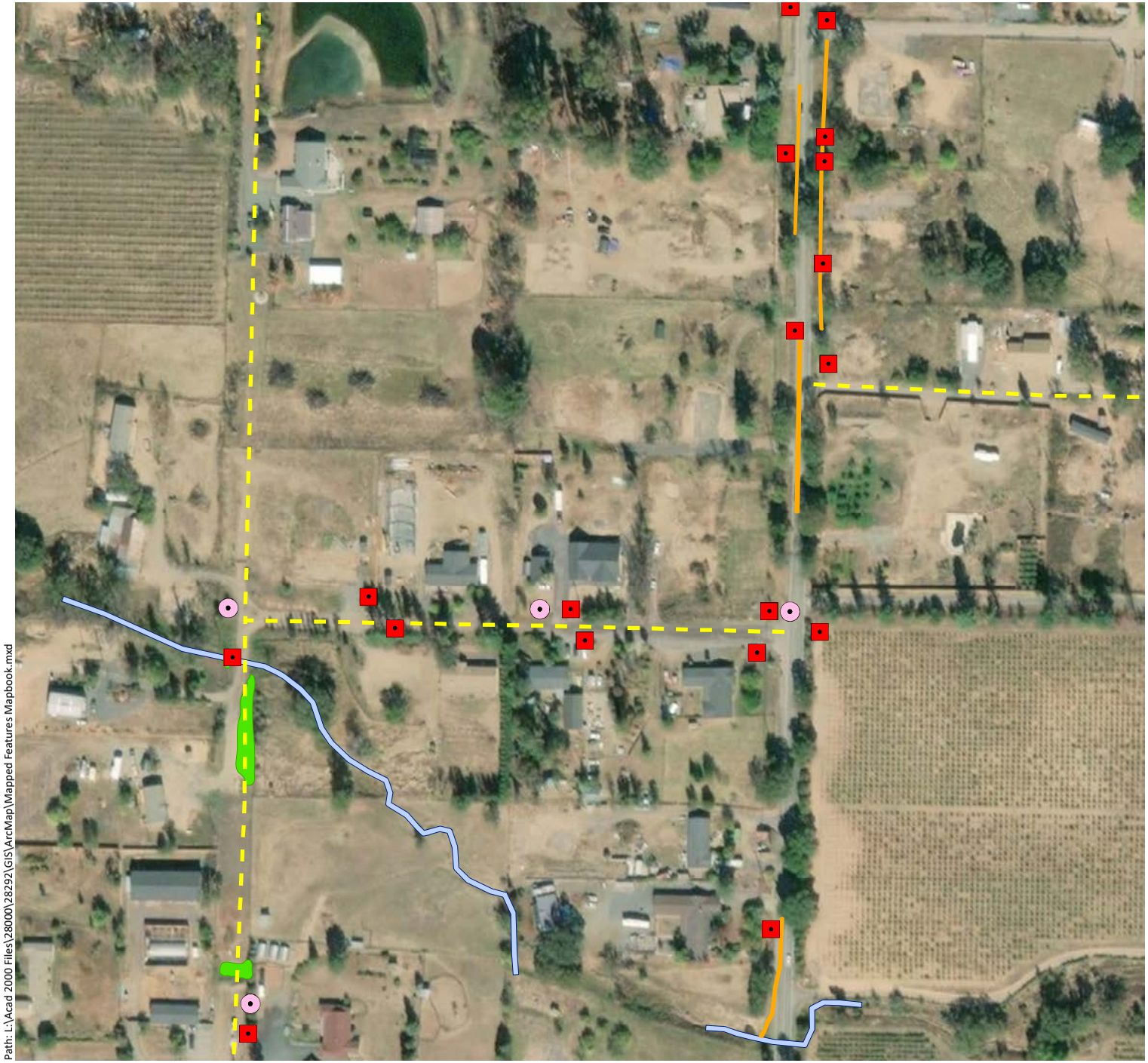


Figure 16B Area D - Mountain View Road & Area F - West Road

MCDT Redwood Valley
Water Infrastructure
Mendocino County, California

- Meter Replacements
- Proposed Flush-outs
- Proposed Water Mains

Potential Waters of the US/State

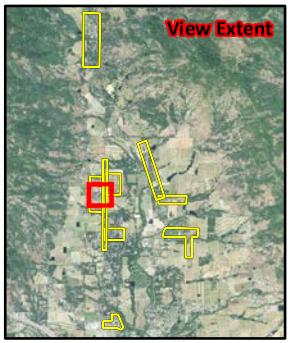
- Ephemeral Stream
- USGS Blue Line Stream
- Roadside Ditch

Potential Wetlands of US/State

- Seasonal Wetland

CDFW Section 1600 Riparian

- Riparian



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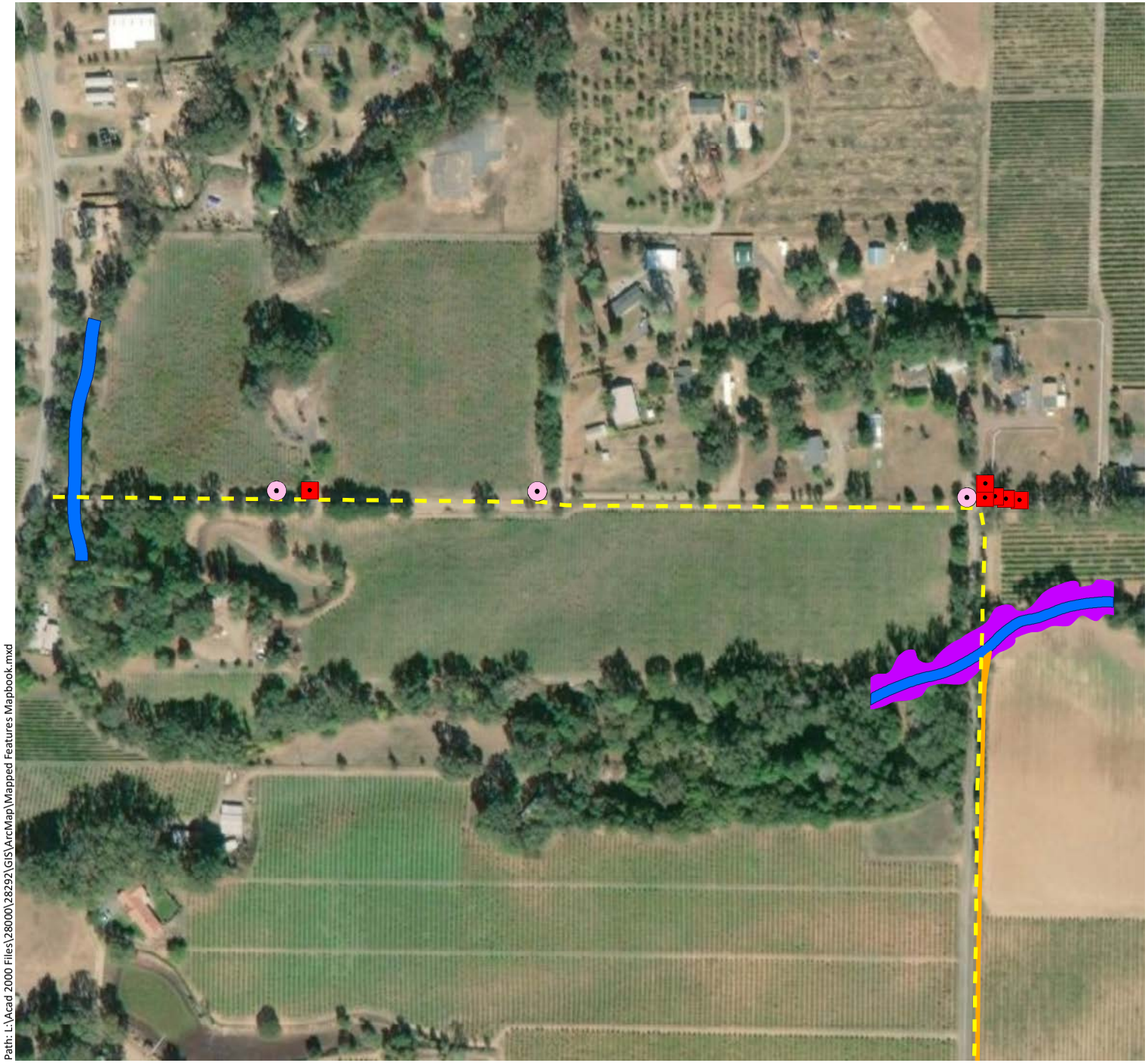

Figure16C Area G - Madrone Drive

MCDT Redwood Valley
Water Infrastructure
Mendocino County, California

Meter Replacements
Proposed Flush-outs
Proposed Water Mains

Potential Waters of the US/State

Ephemeral Stream
USGS Blue Line Stream
Roadside Ditch

Potential Wetlands of US/State

Seasonal Wetland

CDFW Section 1600 Riparian

Riparian

View Extent

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Sources: 2018 DigitalGlobe Aerial, WRA | Prepared By: mrochelle, 8/28/2019

Figure 16D Area H - Road J

MCDT Redwood Valley
Water Infrastructure
Mendocino County, California

Meter Replacements
Proposed Flush-outs
Proposed Water Mains

Potential Waters of the US/State

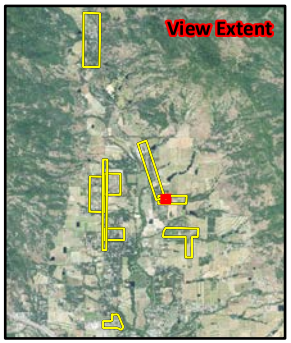
Ephemeral Stream
USGS Blue Line Stream
Roadside Ditch

Potential Wetlands of US/State

Seasonal Wetland

CDFW Section 1600 Riparian

Riparian



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ENVIRONMENTAL CONSULTANTS

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Sources: 2018 DigitalGlobe Aerial, WRA | Prepared By: mrochelle, 8/28/2019

Sensitive Biological Communities

California Bay (*Umbellularia californica* Forest Association). CDFW Rank G4 S3. California bay forest typically occur on alluvial benches, streamsides, valley bottoms, coastal bluffs, and inland ridges and north-facing slopes on shallow to deep sandy to clay loams or rocky outcrops. California bay is dominant (more than 30 percent relative cover) when with interior live oak.

Within the project area, this biological community occurs in association with a stream and is therefore considered riparian. The tree canopy is dominated by California bay with Oregon ash (*Fraxinus latifolia*) and valley oak (*Quercus lobata*) as co-dominant. Understory shrubs are sparse within this community and includes poison oak (*Toxicodendron diversilobum*), California grape (*Vitis californica*), California mugwort (*Artemisia douglasiana*), and non-native grassland. This community is considered sensitive because it has a CDFW Rank of S3 and is riparian. Riparian vegetation is within CDFW jurisdiction under Section 1602 of the CFGC. Impacts to riparian vegetation may require permits from CDFW which may include mitigation measures. While riparian vegetation is located within the project area, it is expected no trees will be removed and no direct impacts to riparian vegetation will occur, as the project footprint is located along existing roads which are above or adjacent to riparian vegetation.

Potential Waters of the U.S./State. The project area contains several non-wetland waters, including roadside ditches constructed as part of roadway and residential drainage, ephemeral and intermittent streams (mapped USGS blue line streams). For the purposes of WRA's assessment, the entire length of these features were not mapped; only portions within the vicinity of the project footprint were mapped to determine proximity to areas of ground disturbance where potential impacts could occur.

Linear channels running parallel and immediately adjacent to roads were generally classified as roadside ditches and are considered to be manmade. These features contain indicators of hydrology including scour, water stained leaves, and algal matting. The top of bank (TOB) width of these features range from 2 to 4 feet. Vegetation within the features was sparse to dense and include tall cyperus (*Cyperus eragrostis*), curly leaf dock (*Rumex crispus*), pennyroyal mint (*Mentha pulegium*), and Harding's grass (*Phalaris aquatica*). Although these features are manmade, they were determined to be potentially subject to jurisdiction by the USACE, RWQCB, and/or CDFW due to potential downstream connections to regulated waters. Some of the more vegetated roadside ditches may alternatively be considered as wetlands due to dense vegetation cover.

Ephemeral streams within the project area are generally between 8 and 10 feet in TOB width and appeared to contain surface flows only immediately after storm events. The canopy of the ephemeral streams are burned and species of trees was difficult to determine. The understory vegetation was dominated by non-native grasses, Himalayan blackberry (*Rubus armeniacus*), curly leaf dock, poison oak, and willow herb.

Intermittent streams within the project area are generally 20 to 25 feet in width and appeared to contain flows for several weeks to months during the year and may have segments of subsurface flow during parts of the year. These streams are un-named mapped USGS blue-line streams. Tree species which provide canopy along the intermittent streams include Oregon ash, interior live oak, (*Quercus wislizenii*), valley oak and California bay (*Umbellularia californica*). The canopy was open to continuous. The understory vegetation was sparse to dense dominated by Himalayan blackberry, California grape, poison

oak, and non-native grassland. One stream contained a pool of standing water, approximately 2-feet deep; otherwise no water was flowing or observed. Evidence of scour, absence of vegetation within the ordinary high water mark (OHWM), and wrack are indicators of water movement observed within the intermittent streams.

These streams are potentially subject to jurisdiction of the USACE and RWQCB under Section 404 and 401 of the CWA, and to CDFW under Section 1600 of the CFGC.

Potential Wetlands of the U.S/State. The project area contains several potential seasonal wetlands which are potentially wetlands of the U.S./State under Section 404 and 401 of the CWA or Porter Cologne Act. Seasonal wetland biological communities occur in swales and depressions that are ponded during the rainy season for a sufficient duration to create anaerobic conditions within the soil, forming indicators of such conditions. Within the project area, areas with hydrophytic plant species or evidence of hydrology (i.e. algal matting) were mapped as potential wetlands. As vegetation was mowed, determining associated species was difficult.

Potential Impacts to Sensitive Biological Communities

WRA's field investigation identified four potential wetlands and nine potential Waters of the U.S/State. The installation of the proposed water mains, meter replacements, and/or proposed flush-outs have the potential to directly or indirectly impact these features, as shown on Figures 16A-D. Potential impacts include release of sediment, debris, or other harmful materials, erosion, accidental grading or placement of fill, intentional grading and placement of fill, and trampling or compaction from construction personnel and equipment.

It is recommended the project activities avoid the potential wetlands to the greatest extent practical. Avoidance measures may include directional boring at a depth appropriate to ensure the features are adequately avoided, or re-routing of project footprint. For features which are not within the footprint of project activities, appropriate avoidance measures should be used to avoid impacts, as described in Mitigation Measure BIO3.

Replacement of water meters will necessarily be conducted in the location of the existing meters. As shown on Figures 16A-D, some of those locations could impact roadside ditches that may be jurisdictional. If avoidance is not practical, Mitigation Measure BIO4 requires a formal wetland delineation be conducted during the spring within the vicinity of the proposed project components to determine extent of the features and secure permits from USACE and RWQCB and a minimum mitigation ratio of 1:1 to reduce impacts to the features to less than significant.

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Please see b.) above. Wetlands, potentially including roadside ditches, are known to be present and will be avoided where possible. Mitigation Measure BIO4 requires a formal wetland delineation be conducted during the spring within the vicinity of the proposed project components to determine extent of the features and secure permits from USACE and RWQCB and a minimum mitigation ratio of 1:1 to reduce impacts to the features to less than significant.

d. Would the project 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?

Streams in the area could serve as migratory corridors for fish and riparian vegetation could serve as a migratory corridor for wildlife. As indicated in b.) above, the project has been designed to avoid impacts to riparian corridors and streams. Any impact would be less than significant.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The project does not conflict with local policies. As described above, any impact would be mitigated consistent with those policies.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The project location is not part of an adopted Habitat Conservation Plan or Natural Community Conservation Plan.

Cumulative Impacts

There are no adverse cumulative environmental impacts to biological resources resulting from implementation of the proposed project.

Mitigation Measures

BIO1

For project areas that occur in non disturbed areas, appropriately timed surveys for congested-headed tarplant shall be completed in June or July, depending on the rainy season, prior to project construction to document the presence or absence of the species within the project area. If the species is observed, measures to avoid or minimize potential impacts should be implemented as described below. If the species is not observed, no further actions would be needed.

If congested-headed tarplant is observed in the project area, the extent of the population should be flagged by a qualified biologist using appropriate buffers, which should be determined by a qualified biologist. The buffered area should be avoided; avoidance measures may include directional boring and/or re-routing. If avoidance is not feasible, a restoration plan should be drafted by a qualified biologist which outlines re-establishment protocol, monitoring methods, and success criteria. The plan should be submitted to the County for approval prior to construction.

BIO2

To avoid impacts to migratory birds (Protected under MBTA and CDFG Code), all construction-related activities shall be initiated during the non-nesting season from September 1 to January 31 to prevent any

impacts to nesting birds. If work cannot be initiated outside the nesting season, the following measures are recommended:

If ground disturbance or removal of vegetation during the nesting season is unavoidable, it is recommended that pre-construction surveys are performed by a qualified biologist no more than 14 days prior to commencement of such activities to determine the presence and location of nesting bird species. If active nests are present, temporary no-work buffers should be placed around active nests to prevent adverse impacts to nesting birds. Appropriate buffer distance shall be determined by a qualified biologist and is dependent on species, surrounding vegetation, and topography. Once active nests become inactive, such as when young fledge the nest or the nest is subject to predation, work may continue in the buffer area and no adverse impact to birds will result.

BIO3

To reduce potential construction-related impacts to wetlands adjacent to construction areas, the following measures shall be implemented:

- BMP's should be installed between the project footprint and aquatic feature prior to ground disturbance. Silt wattles or silt fencing should be installed at least 1-foot away from the edge of wetland or stream top of bank (TOB);
- Project activities within 10 feet of aquatic features should be conducted during the non-rainy season (April through November) to the extent practical. If work must be conducted during the rainy season, no work should be conducted during a significant rainfall event (forecast of > 0.5 inches within a 24 hour period) within 10 feet of aquatic features;
- Silt wattle should be placed between the aquatic feature and the boring machine to prevent contamination of the feature with machine fluids (i.e. boring mud, oil);
- Soil temporarily excavated for the water and sewer line trenches will be placed on the side of the trench furthest from any wetlands or streams;
- Impacts to vegetation adjacent to the aquatic features shall be minimized by installing the project components adjacent to paved roadways where previous soil disturbance has occurred and vegetation has been observed to consist of non-native species as a result of repeated disturbance.

BIO4

The Biological Assessment identified potentially jurisdictional waters/wetlands. If avoidance of those features is not practical, a formal wetland delineation shall be conducted during the spring (at least two weeks following a significant rainfall event and when the ground has been sufficiently moistened by previous rainfall) within the vicinity of the proposed project components to determine extent of the features. Areas within 50-feet of the proposed project shall be examined to determine actual extent of features and associated buffers. The delineation shall focus on the aquatic features mapped during WRA's assessment; however, as the site assessment was conducted during the dry season and as vegetation was mowed, the entire footprint of development and associated 50-foot buffer should be surveyed in areas where wetlands might be present to capture any potential features which were potentially overlooked. The delineation shall be used to obtain proper permits from USACE and RWQCB for impacts to jurisdictional wetlands. If impacts to features are to occur, mitigation measures will be necessary and will be determined during the permitting process, but shall not be less than replacement of wetlands functions and values at a 1:1 ratio.

V CULTURAL RESOURCES

Section 15064.5(a) of CEQA includes a broad definition of historical and archaeological resources as follows:

(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 et seq.).
(2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852) including the following:
    (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    (B) Is associated with the lives of persons important in our past;
    (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
    (D) Has yielded, or may be likely to yield, information important in prehistory or history.
(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	□	■	□	□
b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	□	■	□	□
c. Would the project disturb any human remains, including those interred outside of dedicated cemeteries?	□	■	□	□

Tom Origer & Associates prepared a Cultural Resources Assessment for the project in August, 2019[9]. This section contains excerpts from the report. Locations of resources are necessarily vague as precise locations are confidential.

Origer & Associates study was prepared in compliance with Section 106 of the National Historic Preservation Act, as required by the Federal Emergency Management Agency, and the California Environmental Quality Act. The purpose of the study was to identify resources that could be eligible for inclusion in the National Register of Historic Places, as outlined in 36 CFR 800, and to identify potential historical resources other than Tribal Cultural Resources. The study included archival research at the Northwest Information Center, Sonoma State University, examination of the library and files of Tom Origer & Associates, Native American contact, and field inspection of the Area of Potential Effect (APE). This section contains excerpts of Origer & Associates' report.

Environmental Setting

The majority of the geology of the APE consists of terrace deposits formed during the Pleistocene epoch (11,700 to 2.588 million years ago). A small portion of the APE, where Madrone Road intersects with East Road, comprises Holocene epoch (present to 11,700 years ago) alluvial deposits.

Soils within the APE belong to the Pinnobie, Pinole, Redvine, Talmage, and Yokayo series. At two locations, the APE crosses an unnamed tributary to the Russian River. Several additional unnamed tributaries, Mariposa Creek, and the Russian River lie within a quarter-mile of the APE.

Prehistory

Although archaeological work began as early as the 1900s in the San Francisco Bay Area, no archaeological work was performed in the vicinity of the APE until 1955 when Clement Meighan excavated CA-MEN-500 near Willits. Meighan, along with Richard Beardsley (1954), were the first to publish studies regarding cultural sequences in the area north of San Francisco Bay. In 1973, David Fredrickson synthesized prior work, and in combination with his own research, he developed a regional chronology that is used to this day, albeit modified for locality-specific circumstances. Fredrickson's scheme shows that native peoples have occupied the region for over 11,000 years, and during that time, shifts took place in their social, political, and ideological regimes. While Fredrickson's chronology was adopted by many archaeologists, Beardsley's cultural sequence was adopted by others creating a roughly North Bay-South Bay division in usage. Hildebrandt summarized the Northwest California chronological sequences based on archaeological efforts that took place after Fredrickson's dissertation work.

Early occupants appear to have had an economy based largely on hunting, with limited exchange, and social structures based on the extended family unit. Later, milling technology and an inferred acorn economy were introduced. This diversification of economy appears to be coeval with the development of sedentism and population growth and expansion. Sociopolitical complexity and status distinctions based on wealth are also observable in the archaeological record, as evidenced by an increased range and distribution of trade goods

[9] Cultural Resources Study for the Redwood Valley Water Infrastructure Retrofit Project. Tom Origer & Associates. August 19, 2019.

(e.g., shell beads, obsidian tool stone), which are possible indicators of both status and increasingly complex exchange systems.

Prehistoric archaeological site indicators expected to be found in the region include but are not limited to: obsidian and chert flakes and chipped stone tools; grinding and mashing implements such as slabs and hand-stones, and mortars and pestles; and locally darkened midden soils containing some of the previously listed items plus fragments of bone, shellfish, and fire-affected stones.

Ethnography

Linguists and ethnographers tracing the evolution of languages have found that most of the indigenous languages of the California region belong to one of five widespread North American language groups (the Hokan and Penutian phyla, and the Uto-Aztecan, Algic, and Athabaskan language families). The distribution and internal diversity of four of these groups suggest that their original centers of dispersal were outside, or peripheral to, the core territory of California, that is, the Central Valley, the Sierra Nevada, the Coast Range from Cape Mendocino to Point Conception, and the Southern California coast and islands. Only languages of the Hokan phylum can plausibly be traced back to populations inhabiting parts of this core region during the Archaic period, and there are hints of connections between certain branches of Hokan, such as that between Salinan and Seri, that suggest that at least some of the Hokan languages could have been brought into California by later immigrants, primarily from the Southwest and northwestern Mexico.

At the time of Euroamerican settlement, people inhabiting this area spoke Northern Pomo, one of seven mutually unintelligible Pomoan languages belonging to the Hokan language stock. The Northern Pomo's aboriginal territory falls primarily within present-day Mendocino County with a small portion lying within Lake County. Primary village sites of the Northern Pomo were occupied continually, while temporary sites were visited to procure resources that were especially abundant or available only during certain seasons. Sites often were situated near freshwater sources and in ecotones where plant life and animal life were diverse and abundant.

History

Although C. H. Veeder is credited as the first settler in Redwood Valley in 1857, his residence was located in what is now the community of Calpella which is two-and-a-half miles south of the APE. Review of the land plats and homestead records for Redwood Valley show that settlers in the vicinity of the APE included Burke, Cook, English, Franklin, Golden, McClendon, Salley, Spegal (spelled Speegle in other places), Thomas, Winn, and Zimmerman. Review of census records for 1870 and 1880 show most of the above-listed families living in the area. Those listed were primarily farmers, stock raisers, or farm laborers; though Green Cook was listed as a sawmill worker. This is not surprising as many of the early county histories tout Redwood Valley as having fertile land and state that several vineyards and orchards are planted in the valley.

Soon after the arrival of Euro-Americans, the military established Fort Weller to protect settlers from Native Americans. The fort was in use for nine months before it was abandoned. Gradually, more settlers began to arrive, and services were established. The Northwestern Pacific Railroad was constructed through to Laughlin in 1901. In 1912, the Redwood Valley Improvement Club was established by valley residents to petition the county, state, and federal governments for roads, bridges, electricity, and postal service. By 1920 a grange, post office, a grocery store, a barbershop, and a fire department were established.

Redwood Valley changed very little since the early 20th century. Although a few small subdivisions have been constructed, the overall valley remains rural and devoted to agricultural pursuits.

Historic period site indicators generally include: fragments of glass, ceramic, and metal objects; milled and split lumber; and structure and feature remains such as building foundations and discrete trash deposits (e.g., wells, privy pits, dumps).

METHODOLOGY

Native American Contact

A request was sent to the State of California's Native American Heritage Commission seeking information from the sacred lands files and the names of Native American individuals and groups that would be appropriate to contact regarding this project. Letters were also sent to the following groups:

- Coyote Valley Band of Pomo Indians
- Guidiville Rancheria
- Pinoleville Pomo Nation
- Potter Valley Tribe
- Redwood Valley Rancheria

This contact represents notification regarding the project to provide an opportunity for comment. It does not constitute consultation with tribes (please see the Tribal Cultural Resources section of this document). The Native American Heritage Commission replied with a letter dated February 25, 2019, and a list of additional contacts was provided. No other comments have been received as of the date of this report.

Archival Study Procedures

Archival research included examination of the library and project files at Tom Origer & Associates. This research is meant to assess the potential to encounter archaeological sites and built environment within the study area. Research was also completed to determine the potential for buried archaeological deposits.

Eileen Barrow completed a review (NWIC File No. 19-0205) of the archaeological site base maps and records, survey reports, and other materials on file at the Northwest Information Center (NWIC), Sonoma State University, Rohnert Park on July 30, 2019. Sources of information included but were not limited to the current listings of properties on the National Register, California Historical Landmarks, California Register, and California Points of Historical Interest as listed in the OHP's Historic Property Directory (2012).

The OHP has determined that structures in excess of 45 years of age could be important historical resources, and former building and structure locations could be important archaeological sites. Archival research included an examination of 19th and 20th-century maps and aerial photographs to gain insight into the nature and extent of historical development in the general vicinity, and especially within the study area.

Archival research found that portions of the APE were previously subjected to a cultural resources study. Twenty studies have been conducted within a half-mile of the study area. Prehistoric archaeological site P-23-002886 was documented with the APE. This site was documented as a village location. A total of seven resources are documented within a half-mile of the APE, listed below.

Author	Date	P#	Distance from Study Area
Caretti and Merrit	2017	P-23-002958	520 feet (across Russian River)
Hicks	1966	P-23-000557	380 feet (across Russian River)
King	1966	P-23-000554	700 feet
Patterson	2013b	P-23-006252	60 feet
Riggs	1966	P-23-000555	545 feet (across Russian River)
Riggs and Hicks	1966	P-23-000556	390 feet
Stewart	1935	P-23-002885	515 feet

The ethnographic site of *kä'chä* is reportedly located in Redwood Valley.

A review of 19th and 20th-century maps shows no buildings within the APE. There are no important bridges within the APE.

Based on landform age, Origer & Associates' analysis of the environmental setting, and incorporating Meyer and Kaijankoski analysis of sensitivity for buried sites, the majority of the APE has a very low potential (<1) for buried archaeological site indicators. The small portion of the APE that lies on a Holocene-age landform has a high potential (5.6) for buried archaeological site indicators.

Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Origer & Associates' review of 19th and 20th-century maps revealed no buildings within the APE. There are no buildings or structures within the APE and installation of buried lateral water lines will have no impact on buildings that are within sight of the APE.

Origer & Associates determined there would be no impact to existing known historical resources. However, there is always the possibility of accidental discovery of historical resources during construction. In the event resources are discovered, mitigation measure CR1 would reduce such impact to less than significant.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

An intensive field survey was completed by Eileen Barrow on July 31, 2019. A total of 6.5 hours was spent in the field under sunny conditions. Surface examination consisted of walking in the road right-of-way since the majority of the APE lies within the roadway. A hoe was used as needed to expose the ground surface. Ground visibility ranged from excellent to poor, with vegetation, imported gravel, and duff being the primary hindrances. An unnamed drainage flows through the APE where the APE lies on a Holocene-age landform. The profile of the bank at this location was examined for buried archaeological site indicators. Special attention was made during the survey to the portions of the APE where resources were previously documented in close proximity to or within the APE.

No new archaeological site indicators were found during the course of the survey. No evidence of P-23-002886 (ethnographic site of *kä'chä*) was found during the survey. The plotted location of P-23-002886 is based on interviews with Omer Stewart and Native American informants, not on an actual site visit. Caretti et al. (2017) monitored the installation of utility poles within the mapped location of the site and saw no evidence of a village. It appears that the location of the village is misplotted.

Analysis of the buried site potential showed that only a small area of the APE had a high potential. All other portions of the APE had a very low potential for buried archaeological resources. Subsurface soils were examined in a creek bank at the location of high sensitivity and no buried archaeological site indicators were observed.

Based on the above, Origer & Associates has determined there would be no impact to existing known archaeological resources. However, there is always the possibility of accidental discovery of archaeological resources during construction. In the event resources are discovered, mitigation measure CR1 would reduce such impact to less than significant.

c. Would the project disturb any human remains, including those interred outside of formal cemeteries?

There are no known human remains in the project area. However, the remote possibility exists that human remains could be discovered during construction. In such an event, Mitigation Measure CR2 would reduce such impact to a less than significant level.

Cumulative Impacts

There are no adverse cumulative environmental impacts to cultural resources resulting from implementation of the proposed project.

Mitigation Measures

CR1

The project plans and specifications shall provide that in the event prehistoric-era or historic-era archaeological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. Prehistoric-era archaeologic site indicators could include chipped chert and obsidian tools and tool manufacture waste flakes, grinding implements such as mortars and pestles, and locally darkened soil containing the previously mentioned items as well as fire altered stone and dietary debris such as bone and shellfish fragments. Historic-era archaeologic site indicators could include items of ceramic, glass and metal, and features such as structural ruins, wells and pits containing such artifacts. After cessation of excavation, the contractor shall immediately contact the District. The District shall contact a qualified professional archaeologist immediately after the find. Such archaeologist shall conduct an evaluation of significance of the site, and assess the necessity for mitigation and contact local Native American tribes, as appropriate. The contractor shall not resume construction activities until authorization to proceed is received from the District.

CR2

If human remains are encountered during grading, excavation or trenching, all construction activity shall cease and the contractor shall immediately contact the District and the Mendocino County Coroner's Office. If the remains are determined by the Coroner's Office to be of Native American origin, the Native American Heritage Commission shall be contacted and the procedures outlined in CEQA §15064.5 (d) and (e) shall be implemented by the District or its designee.

VI ENERGY

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	□	□	□	■
b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	□	□	□	■

Setting

The California Energy Commission (Energy Commission) was charged with developing the state's Renewable Energy Program in 1998, following deregulation of electric utilities. The Energy Commission provides a brief history of its actions with regard to the Renewable Energy Program:

> In 2002, California established its Renewables Portfolio Standard (RPS) Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent by 2017. The Energy Commission's 2003 Integrated Energy Policy Report recommended accelerating that goal to 2010, and the 2004 Energy Report Update urged increasing the target to 33 percent by 2020. Governor Schwarzenegger, the Energy Commission, and the California Public Utilities Commission (CPUC) endorsed this enhanced goal for the state as a whole. Achieving these renewable energy goals became even more important with the enactment of AB 32 (Núñez, Chapter 488), the California Global Warming Solutions Act of 2006. This legislation sets aggressive greenhouse gas reduction goals for the state and its achievements will depend in part on the success of renewable energy programs.
>
> SBX1-2 was signed by Governor Edmund G. Brown, Jr., in April 2011 to codify the ambitious 33 percent by 2020 goal. In his signing comments, Governor Brown noted that "This bill will bring many important benefits to California, including stimulating investment in green technologies in the state, creating tens of thousands of new jobs, improving local air quality, promoting energy independence, and reducing greenhouse gas emissions."
>
> This new RPS applied to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must adopt the new RPS goals of 20 percent of retails sales from renewables by the end of 2013, 25 percent by the end of 2016, and the 33 percent requirement being met by the end of 2020.
>
> In October 2015, Governor Brown signed Senate Bill 350 to codify ambitious climate and clean energy goals. One key provision of SB 350 is for retail sellers and publicly

> owned utilities to procure "half of the state's electricity from renewable sources by 2030.[10]"

These goals were accelerated in 2016 with passage of SB 32 requiring lowering greenhouse gas emissions to 40 percent below 1990 levels by 2030. Further, "In 2018, Senate Bill 100...set a planning target of 100 percent zero-carbon electricity resources by 2045 and increased the 2030 renewables target from 50 percent to 60 percent. On the same day of signing SB 100, then-Governor Brown signed Executive Order B-55-18 with a new statewide goal to achieve carbon neutrality (zero-net GHG emissions) by 2045 and to maintain net negative emissions thereafter. The executive order covers all sectors of the economy[11]."

Today, California's energy policies are intertwined with goals of reducing greenhouse gases. The Energy Commission produces the biennial Integrated Energy Policy Report. The report contains an integrated assessment of major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety. The most recent report was divided into two sections. Volume I was produced in 2018 and Volume II was released in February 2019[12].

CURRENT ENERGY USAGE AND SOURCES

California uses the least electricity per person of any state with a 2016 (most recent electricity California Energy Commission date) usage of 6,536 kWh per capita[13]. The Census states that Mendocino County had an estimated population of 87,600 in 2018[14] and the California Energy Commission indicates that Mendocino County used a total (residential and non-residential) of 566.480545 gigawatt hours (GWh) of electricity in 2018[15] for a per capita use of approximately 6,667 kWh, somewhat above the state average.

Mendocino County is provided electricity by Sonoma Clean Power, a community choice aggregation, through PG&E maintained infrastructure. As of 2018, Sonoma Clean Power's power mix was ahead of California's goal and supplied 45 percent of its electricity from renewable resources under the California Renewables Portfolio Standard. Additionally, in 2018, 42 percent of Sonoma Clean Power's supply was hydroelectric, for a total of 87 percent greenhouse gas free electricity[16]. In contrast, the overall power mix in California is 29 percent renewable, 15 percent hydroelectric, and nine percent nuclear, or 53 percent greenhouse gas free electricity. In 2018, total renewable electricity in California was 34 percent[17].

[10] https://www.energy.ca.gov/renewables/history.html
[11] Ibid.
[12] https://www.energy.ca.gov/2018_energypolicy/
[13] https://www.energy.ca.gov/almanac/electricity_data/us_per_capita_electricity.html
[14] https://www.census.gov/quickfacts/fact/table/mendocinocountycalifornia,US/PST045218
[15] http://www.ecdms.energy.ca.gov/elecbycounty.aspx
[16] https://sonomacleanpower.org/annual-report
[17] https://www.energy.ca.gov/2018publications/CEC-100-2018-001/Exec_Sumry_CEC-100-2018-001-V2-CMF.pdf

Analysis

a. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Project construction would only account for a minor use of energy, primarily associated with fuels used in construction vehicles. All construction vehicles would be California-compliant to ensure state goals of energy efficiency and air quality are maintained. The water mains would not require energy after installation. No pumping facilities or treatment facilities that would use electricity and no expansion of water service that would require additional water pumping or treatment at existing facilities are proposed by the project. The project is necessary to update distribution system resiliency in the existing water system and would not result in a wasteful, inefficient, or unnecessary consumption of energy resources.

b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. As indicated previously, electricity to the project is currently provided by Sonoma Clean Power which is exceeding the state's renewable energy goals.

Cumulative Impacts

There are no adverse cumulative environmental impacts to energy resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to energy have been identified; therefore, no mitigation is required.

VII GEOLOGY & SOILS

RGH Consultants prepared a Geotechnical Evaluation of the project area[18]. This section includes excerpts from the RGH report.

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	□	□	■	□
ii. Strong seismic ground shaking?	□	□	■	□
iii. Seismic-related ground failure, including liquefaction?	□	□	■	□
iv. Landslides?	□	□	□	■
b. Would the project result in substantial soil erosion or the loss of topsoil?	□	□	□	■
c. Would the project 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. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	□	□	■	□
e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	□	□	□	■
f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	□	■	□	□

[18] Redwood Valley Infrastructure Retrofit Project—Geotechnical Evaluation Report. RGH Consultants. June 17, 2019.

Environmental Setting

REGIONAL GEOLOGY AND TOPOGRAPHY

Mendocino County is located within the California Coast Range geomorphic province. This province is a geologically complex and seismically active region characterized by sub-parallel northwest-trending faults, mountain ranges, and valleys. The oldest bedrock units are the Jurassic-Cretaceous Franciscan Complex and Great Valley sequence sediments originally deposited in a marine environment. Subsequently, younger rocks such as the Tertiary-age Sonoma Volcanics group, the Plio-Pleistocene-age Clear Lake Volcanics, and sedimentary rocks such as the Guinda, Domengine, Petaluma, Wilson Grove, Cache, Huichica and Glen Ellen formations were deposited throughout the province. Extensive folding and thrust faulting during late Cretaceous through early Tertiary geologic time created complex geologic conditions that underlie the highly varied topography of today. In valleys, the bedrock is covered by thick alluvial soil.

Published geologic maps indicate the pipeline areas are underlain by Quaternary nonmarine terrace deposits. These deposits are shown to consist of Holocene and Pleistocene alluvial fan and terrace deposits.

LIQUEFACTION

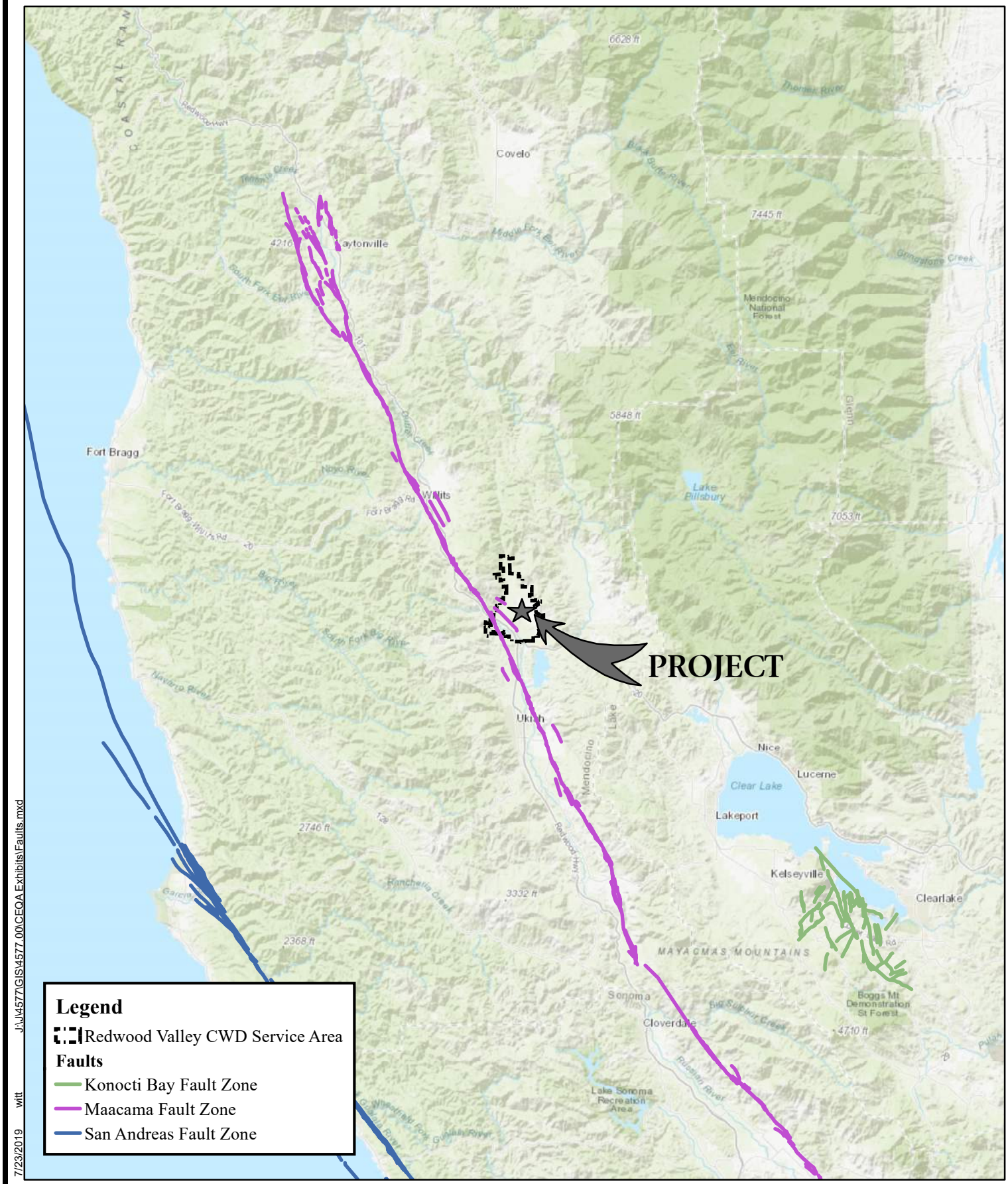
Liquefaction is the process where water is combined with unconsolidated soils, generally from ground motions and pressure, which causes the soils to behave like quicksand. Liquefaction potential is determined from a variety of factors including soil type, soil density, depth to the groundwater table, and the expected duration and intensity of ground shaking. Liquefaction is most likely to occur in deposits of water-saturated alluvium or areas of considerable artificial fill.

Subsurface exploration was not conducted as part of RGH's investigation, so there are no alignment specific subsurface conditions. RGH's experience in the area and with alluvial fan and terrace deposits indicates that the subsurface conditions will likely consist of layers of gravel, sand, silt, and clay. These layers will not be consistently found along every segment and will be variable in thickness. Alluvial fan deposits, in particular the sand and gravel, are susceptible to liquefaction.

SEISMIC CONDITIONS

Throughout Mendocino County and entire Northern California region, ground shaking from earthquakes represents a significant geologic hazard to developments. The intensity of ground shaking will be dependent on several factors such as: 1) distance from the site to the earthquake focus; 2) depth of earthquake focus; 3) earthquake magnitude; 4) response of the underlying soil and rock; and, 5) topography and local geologic structure.

Similar to all of Mendocino County, the project area is within a seismically active area. The nearest faults considered to be 'Holocene-active' (experiencing surface rupture within about the last 11,000 years) are shown below and on Figure 17; other faults in the project area are considered to be in the 700,000 to two million year old range and considered less likely to result in seismic activity. These faults have the potential to produce earthquakes in the project area.



Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Faults: USGS

NORTH

0 2.5 5 10 Miles

Brelje & Race CONSULTING ENGINEERS
475 Aviation Blvd. Suite 120, Santa Rosa, CA 95403

FIGURE 17

EARTHQUAKE FAULTS

REWOOD VALLEY COUNTY WATER DISTRICT
AUGUST 2019

Fault	Approximate Distance to Fault (miles)	Direction to Fault
Maacama	2.5	West
Konocti	30	Southeast
San Andreas	32	West

Regulatory Setting

FEDERAL REGULATIONS

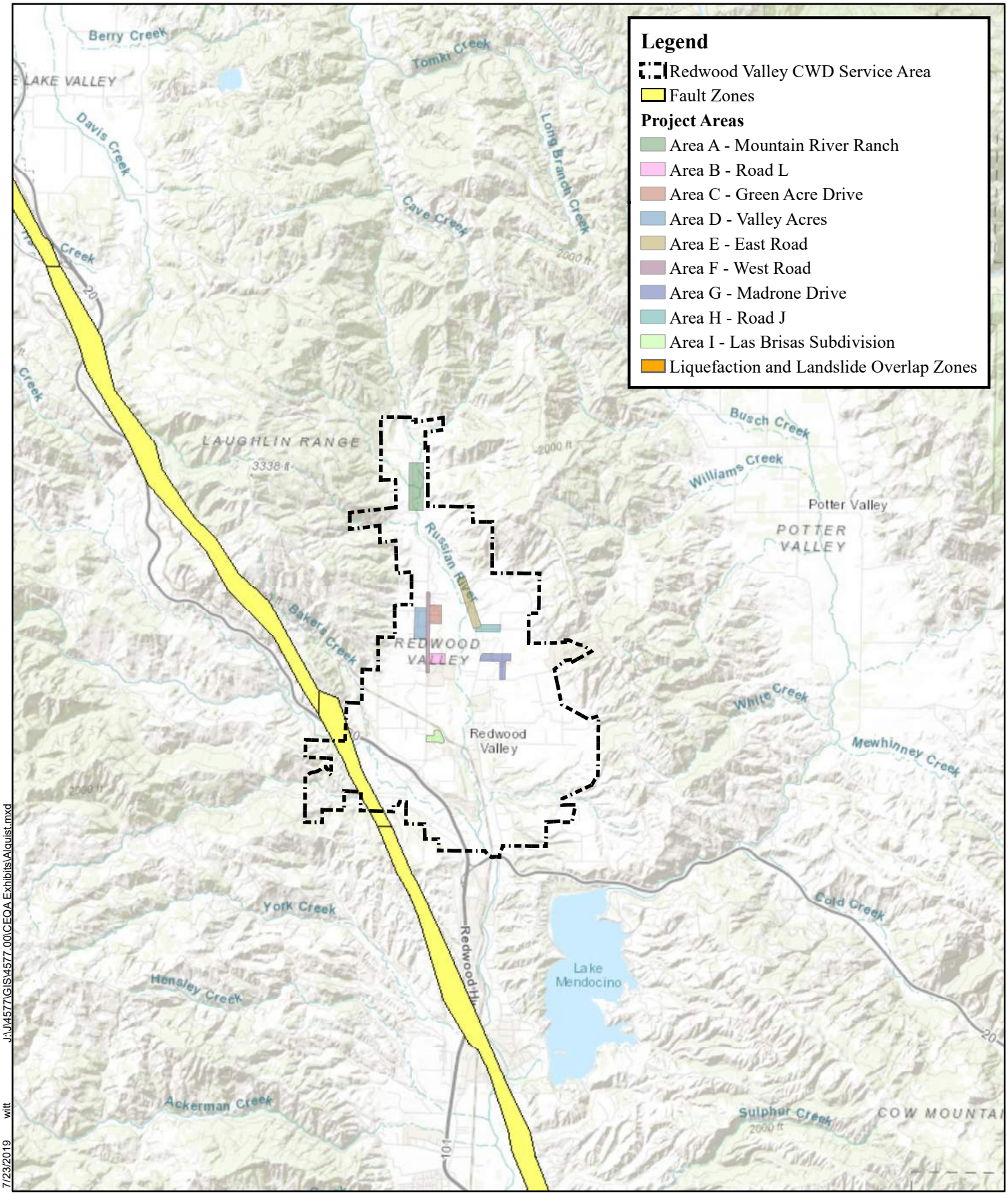
Clean Water Act 402 and National Pollutant Discharge Elimination System

The CWA is discussed in detail in the Hydrology and Water Quality section of this document. However, because CWA Section 402 is directly relevant to excavation, additional information is provided below. Amendments in 1987 added Section 402p to establish a framework for regulating municipal and industrial stormwater discharges under National Pollutant Discharge Elimination System (NPDES) program. The EPA has delegated to the State Water Resources Control Board (SWRCB) the authority for the NPDES program in California, which is implemented by the state's nine regional water quality control boards. Under the NPDES Phase II Rule, construction activity disturbing one acre or more must be permitted under the state's General Construction Permit. General Construction Permit applicants are required to prepare a Notice of Intent and a Stormwater Pollution Prevention Plan (SWPPP) and implement and maintain Best Management Practices (BMPs) to avoid adverse effects on receiving water quality as a result of construction activities, including earthwork.

STATE REGULATIONS

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (prior to January 1, 1994, known as the Alquist-Priolo Special Studies Zones Act – CCR, Title 14, Section 3600) sets forth the policies and criteria of the State of California in regards to building within active fault zones mapped pursuant to the Act. The Alquist-Priolo Earthquake Fault Zoning Act outlines cities' and counties' responsibilities in prohibiting the location of developments and structures for human occupancy across the trace of active faults. The policies and criteria are limited to potential hazards resulting from surface faulting or fault creep within Earthquake Fault Zones delineated on maps officially issued by the State Geologist. Figure 18 shows the project relative to the nearest mapped fault zone.



Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Department of Conservation

NORTH

0 0.5 1 2 Miles

Brelje & Race CONSULTING ENGINEERS
475 Aviation Blvd. Suite 120, Santa Rosa, CA 95403

FIGURE 18

ALQUIST PRIOLO ZONES

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019

Seismic Hazard Mapping Act

Like the Alquist-Priolo Act, the Seismic Hazards Mapping Act of 1990 (PRC 2690 2699.6) is intended to reduce damage resulting from earthquakes. The Seismic Hazards Mapping Act addresses earthquake-related hazards, including strong ground shaking, liquefaction, and seismically induced landslides. The state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development within mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development. Specifically, cities and counties are prohibited from issuing development permits for sites in Seismic Hazard Zones until appropriate site-specific geologic or geotechnical investigations have been carried out, and measures to reduce potential damage have been incorporated into the development plans.

California Building Code

The California Code of Regulations, Title 24, also known as the California Building Standard Code or the California Building Code (CBC), establishes guidance for foundation design, shear wall strength, and other structurally related concerns. The CBC modified common building regulations for specific conditions found in California and included a large number of more detailed and/or more restrictive regulations. For example, CBC includes common engineering practices requiring special design and construction methods that reduce or eliminate potential expansive soil-related impacts. The CBC requires structures to be built to withstand ground shaking in areas of high earthquake hazards and the placement of strong motion instruments in larger buildings to monitor and record the response of the structure and the site of the seismic activity. Compliance with CBC regulations ensures the adequate design and construction of building foundations to resist soil movement. In addition, the CBC also contains drainage requirements in order to control surface drainage and to reduce seasonal fluctuations in soil moisture content.

Analysis

a. Would the project directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:

a.i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

The project area would be not located within an Alquist-Priolo Zone, as shown on Figure 18, and RGH did not find evidence of landforms indicating fault rupture within the project area. The project would be required to implement California Building Code Seismic Design Category Requirements into the project design for applicable features to minimize hazards associated with potential fault rupture, ground shaking, and liquefaction. Based on incorporation of appropriate geotechnical design recommendations and engineering standards, the risk to the project from fault rupture is considered to be less than significant.

a.ii. Strong seismic ground shaking?

The project is specifically intended to reduce existing risk of seismic damage to the existing water distribution system and increase system resilience. The project location is subject to strong seismic ground shaking. As indicated in a.i.) above, the project would be designed and constructed in strict adherence with current standards for earthquake-resistant construction, as is standard practice. Risk to the project is considered to be less than significant.

a.iii. Seismic-related ground failure, including liquefaction?

As indicated in a.ii.) above, seismic ground shaking could occur in the project area and the project is intended to reduce existing seismic risks. The project is in an area potentially subject to liquefaction due to soil conditions. The project would be designed and constructed in strict adherence with current standards for earthquake-resistant construction, as is standard practice. Risk to the project is considered to be less than significant.

a.iv. Landslides?

The project would primarily be constructed within areas with existing infrastructure and residential development. Landslides are not evident at current project locations and the project would not increase the risk of landslides.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Proposed project locations would be within existing roads, existing gravel driveways, or flat undeveloped areas. Stormwater drainage in the area primarily consists of overland flow over the ground and roadway surfaces that concentrate in man-made drainage elements such as roadside gutters and drainage ditches. Surfaces would be restored to existing conditions once construction is complete to ensure there is no long-term erosion.

The project would have a total disturbance area of approximately 2.3 acres and would be subject to coverage under the State Water Resources Control Board (SWRCB) Construction General Permit. Compliance with the General Permit would require filing a Notice of Intent (NOI) with the SWRCB and development and implementation of a SWPPP. The project would also include an erosion control plan as part of the plans and specifications. Compliance with the General Permit would minimize the potential for erosion-related impacts to surface waters to the extent possible. Because the project would comply with current regulations to limit erosion-related water quality impacts during and after construction, there would be no impact.

c. Would the project 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?

The project area currently supports the existing development and water distribution system. The proposed project components would replace and intertie existing water mains. Appropriate design according to professional standards and regulations contained in the most recent edition of the California Building Code would ensure that any risk from on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse is less than significant.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

RGH did not identify expansive soils. Appropriate design according to professional standards and regulations contained in the most recent edition of the California Building Code would ensure that any risk from expansive soils is less than significant.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Wastewater service in the project area is provided by individual septic systems. No new wastewater would be generated by the proposed project.

f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

There are no known paleontological resources or unique geologic features in the project area. Mitigation Measure GS1 is included to preserve any such features discovered during construction and reduces any potential impact to less than significant.

Cumulative Impacts

There are no adverse cumulative environmental impacts to geology and soils resulting from implementation of the proposed project.

Mitigation Measures

GS1

The project plans and specifications shall provide that in the event paleontological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. After cessation of excavation, the contractor shall immediately contact the District. The District shall contact a qualified professional geologist or paleontologist immediately after the find. Such consultant shall conduct an evaluation of significance of the site, and assess the necessity for mitigation. The contractor shall not resume construction activities until authorization to proceed is received from the District.

VIII GREENHOUSE GAS EMISSIONS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	□	□	■	□
b. Would the project Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	□	□	□	■

To fully understand global climate change it is important to recognize the naturally occurring "greenhouse effect" and to define the greenhouse gases (GHG) that contribute to this phenomenon. The temperature on Earth is regulated by this "greenhouse effect," which is so named because the Earth's atmosphere acts like a greenhouse, warming the planet in much the same way that an ordinary greenhouse warms the air inside its glass walls. Like glass, the gases in the atmosphere let in light yet prevent heat from escaping.

Greenhouse gases are naturally occurring gases such as water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O) that absorb heat radiated from the Earth's surface. Greenhouse gases are transparent to certain wavelengths of the Sun's radiant energy, allowing them to penetrate deep into the atmosphere or all the way to Earth's surface. Clouds, ice caps, and particles in the air reflect about 30 percent of this radiation, but oceans and land masses absorb the rest (70 percent of the radiation received from the Sun) before releasing it back toward space as infrared radiation. The greenhouse gases and clouds effectively prevent some of the infrared radiation from escaping; they trap the heat near the Earth's surface where it warms the lower atmosphere.

In addition to natural sources, human activities are exerting a major and growing influence on climate by changing the composition of the atmosphere and by modifying the land surface. Particularly, the increased consumption of fossil fuels (natural gas, coal, gasoline, etc.) has substantially increased atmospheric levels of greenhouse gases. Measured atmospheric levels of certain greenhouse gases such as CO_2, NH_4, and N_2O have risen substantially in recent decades. This increase in atmospheric levels of greenhouse gases unnaturally enhances the "greenhouse effect" by trapping more infrared radiation as it rebounds from the Earth's surface and thus trapping more heat near the Earth's surface.

California Implications

In 2016, CARB published the 2016 California GHG Emissions Inventory, a review and analysis of GHG emissions from 2000 to 2014. According to the report, in 2014, total California GHG emissions were 441.5 million metric tons of CO2 equivalent (MMTCO2e), a decrease of 2.8 MMTCO2e compared to 2013. This represents an overall decrease of 9.4 percent since peak levels in 2004. During the 2000 to 2014 period, per capita GHG emissions in California have continued to drop from a peak in 2001 of 13.9 tons per person to 11.4 tons per person in 2014; an 18 percent decrease[19]. State regulations have begun lowering California's

[19] https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2014/ghg_inventory_trends_00-14_20160617.pdf

GHG contribution to global GHG levels, but managing GHG emissions remains an ongoing priority in California.

State Regulations

CLIMATE CHANGE REGULATORY FRAMEWORK

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Global Warming Solutions Act, which created a comprehensive, multi-year program to reduce GHG emissions in California. AB 32 required CARB to develop a Scoping Plan, adopted in 2008, that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan recognizes that local GHG reduction commitments and climate action plans are essential to the state meeting its targeted emissions reductions. In 2016, the Legislature passed SB 32, which codified a 2030 GHG emissions reduction target of 40 percent below 1990 levels by 2030. The Scoping Plan was updated in 2017.

California's energy policies are intertwined with goals of reducing greenhouse gases. "In 2018, Senate Bill 100...set a planning target of 100 percent zero-carbon electricity resources by 2045 and increased the 2030 renewables target from 50 percent to 60 percent. On the same day of signing SB 100, then-Governor Brown signed Executive Order B-55-18 with a new statewide goal to achieve carbon neutrality (zero-net GHG emissions) by 2045 and to maintain net negative emissions thereafter. The executive order covers all sectors of the economy... Executive Order B-55-18 follows the spirit of what is required at a global scale to achieve the climate goals of the Paris Agreement, in which signatory nations worldwide agree to sufficiently reduce GHG emissions to avoid catastrophic climate change. This is also consistent with a special report by the Intergovernmental Panel on Climate Change, which found that to avoid catastrophic climate change, global carbon dioxide emissions must decline by about 45 percent below 2010 levels by 2030 and reach net zero by about 2050[20]."

LOCAL REGULATIONS

CARB works with 35 air pollution districts in California to enforce air pollution regulations. The MCAQMD enforces air quality regulations in Mendocino County. Many metropolitan air pollution districts, cities, and counties have adopted Local Climate Action Plans consistent with CARB Scoping Plan goals. Due to the rural nature of the project area, neither the MCAQMD nor the County of Mendocino have developed a Climate Action Plan.

Because the MCAQMD has not developed GHG regulations or a Climate Action Plan, it has not identified a significance threshold for GHG emissions or a methodology for analyzing air quality impacts related to greenhouse gas emissions. Similarly, the County has not prepared a Climate Action Plan so there is no established local threshold of significance for GHGs. The nearby Sacramento Metropolitan Air Quality Management District[21] (SMAQMD) adopted GHG thresholds of significance in 2014 that are contained in the SMAQMD's CEQA Guide[22]. For land development and construction projects, the threshold has been established as 1,100 metric tons per year (MT/yr) for construction and operational phases. Stationary sources

[20] 2018 Integrated Energy Policy Report Update Volume II. California Energy Commission. January 2019.
[21] The Sacramento Metropolitan Air Quality Management District is used here because the BAAQMD has not adopted a threshold for construction-related GHG emissions in its CEQA Guidelines utilized in the Air Quality section of this document.
[22] http://www.airquality.org/Businesses/CEQA-Land-Use-Planning/CEQA-Guidance-Tools

(projects that don't involve transportation impacts) have been determined to have an operational threshold of 10,000 MT/yr. Since neither the MCAQMD nor Mendocino County has adopted these thresholds, the SMAQMD's thresholds are a useful guideline for assessing this project's potential impacts.

Analysis

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Project construction GHG emissions were modeled using the Roadway Construction Emissions Model developed by SMAQMD for transportation and pipeline projects. Modeled construction-related CO2e emissions are shown below and are expected to be 352 MT/yr CO2e, under SMAQMD's 1,100 MT/yr threshold and therefore are considered to be less than significant. Because the project interties existing water distribution pipelines, replaces existing undersized water mains and does not induce growth, operational emissions would be essentially unchanged and were not quantified.

SMAQMD Thresholds of Significance			**Project Emissions**	
	Construction Average Daily Emissions (MT/yr)	Operational Annual Emissions (MT/yr)	RoadMod[23] Construction Emission Estimates (MT/yr)	RoadMod Operational Emission Estimates (MT/yr)
GHG as CO2e	1,100	1,100	352	Not quantified

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Neither MCAQMD nor Mendocino County have adopted a Climate Action Plan. Because the project does not exceed the SMAQMD's construction threshold of 1,100 MT/yr and operational emissions would be essentially unchanged, the project would not impede implementation of a local Climate Action Plan, should one be developed.

Cumulative Impacts

As indicated in a.) above, the project would result in short-term emissions of GHGs associated with project construction. Construction-related emissions are not considered to be cumulatively considerable based on the limited nature of the construction project and emissions expected to below the 1,100 MT/yr threshold.

Mitigation Measures

No adverse environmental impacts to greenhouse gas emissions have been identified; therefore, no mitigation is required.

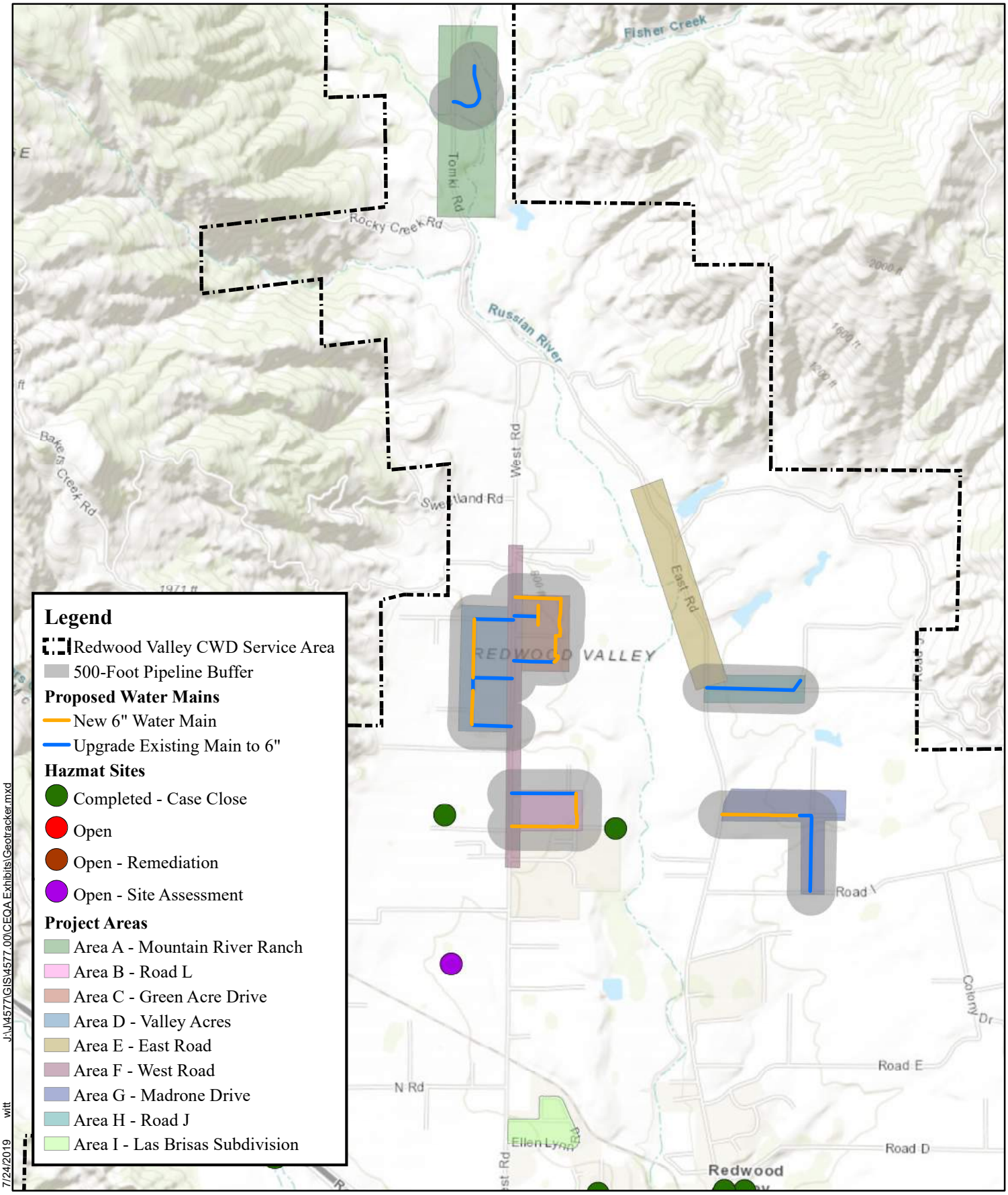
[23] Roadway Construction Emissions Model v 8.1.0

IX HAZARDS & HAZARDOUS MATERIALS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	□	□	□	■
b. Would the project 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. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	□	□	□	■
d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	□	■	□	□
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	□	□	□	■
f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	□	□	■	□
g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	□	□	□	■

Environmental Setting

There are no known hazardous materials sites adjacent to within 500 feet of proposed pipeline sites. Sites listed on California's Geotracker system are shown on Figure 19. Implementation of the project would require the use of small quantities of hazardous materials, including petroleum and other chemicals, to operate and maintain construction equipment.



Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Hazardous Materials: Water Resources Control Board GeoTracker (2109)

NORTH

0 0.125 0.25 0.5 Miles

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FIGURE 19
HAZARDOUS MATERIALS SITES

REWOOD VALLEY
COUNTY WATER DISTRICT
AUGUST 2019

REGULATORY SETTING

Federal Regulations

Hazardous materials in the project area are subject to applicable federal regulations, including the Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act. Other applicable federal regulations are contained primarily in CFR Titles 29, 40, and 49.

State Regulations

California regulations are as stringent as or more stringent than federal regulations. The EPA has granted the State of California primacy oversight responsibility for administering and enforcing hazardous waste management programs. State regulations require planning and management to ensure that hazardous wastes are handled, stored, and disposed of properly to reduce risks to human and environmental health.

Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The project would intertie and replace existing water distribution mains and is not associated with hazardous materials. Construction of the proposed project would include the use and short-term storage of hazardous materials. These materials include, but are not limited to, lubricants, adhesives, paints, asphalt, fuel, and toxic solvents. The proposed project is required to comply with federal, state, and local regulations regarding the storage, handling, disposal, and cleanup of hazardous materials. No routine transport, use, or disposal of hazardous materials is associated with this project. The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

b. Would the project 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?

As indicated above, the project would not introduce new long-term hazardous materials or hazardous materials handling. There is the potential for a fuel/oil spill during construction from construction vehicles and equipment. Mitigation Measure HM1 would reduce such impact to a less than significant level.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The project would not result in emissions or handling of hazardous materials within one quarter mile of an existing or proposed school. The project includes the intertie and replacement of existing water mains and would not emit hazardous emissions or handle hazardous or acutely hazardous materials.

d. Would the project 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?

The proposed project is not adjacent or in close proximity to hazardous materials sites listed by the State Water Resources Control Board GeoTracker system as shown on Figure 18. There are no listed sites within 500 feet of any of the proposed project components. There is the possibility, as with any construction project, that contaminated soils may be found during construction. In that event, Mitigation Measure HM1 requires the contractor to cease work and contact the District and the Regional Board to develop a plan to dispose of the soils and to ensure worker safety and protection of the environment.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The nearest public use airport, Ukiah Municipal Airport, is located in Ukiah and is approximately ten linear miles south of the project area. The project is not located within the airport's airport land use plan area. Therefore, there would be no impact.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Mendocino County Office of Emergency Services (OES) coordinates emergency response planning in unincorporated Mendocino County. OES has assessed potential risks to the County through development of the Mendocino County Multi-Hazard Mitigation Plan[24]. Primary threats to the project area identified in the Mendocino County Multi-Hazard Mitigation Plan and include earthquakes and aftershocks, hazardous materials releases, floods, landslides, national security incidents, and wildfires.

The County has also prepared the Mendocino County Operational Area Emergency Operations Plan (EOP)[25] that serves as the primary guide for coordinating and responding to all emergencies and disasters within the county. Local emergency services are provided by the Mendocino County Sheriff and the Redwood Valley Calpella Fire District.

An efficient roadway and circulation system is vital for the evacuation of residents and the mobility of fire suppression, emergency response, and law enforcement vehicles. The District shall require that the contractor develop a traffic management plan that ensures the existing roadway system within the project areas shall be kept accessible to residents and to all first responder units by the incorporation of half-width improvements and traffic control utilization. Additionally, encroachment permits required from the County would ensure appropriate traffic control and emergency access are maintained. As such, this impact would be less than significant.

[24] Mendocino County Multi-Hazard Mitigation Plan. County of Mendocino. 2014.
[25] Mendocino County Operational Area Emergency Operations Plan. County of Mendocino. 2016.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The project includes replacing and intertying existing water mains. Once completed, the project would primarily be underground and would not increase the risk of wildland fires.

Cumulative Impacts

There are no adverse cumulative environmental impacts to or from hazards/hazardous materials resulting from implementation of the proposed project.

Mitigation Measures

HM1

The contractor shall be required to follow the provisions of § 5163 through 5167 of the General Industry Safety Orders (California Code of Regulations, Title 8) to protect the project area from being contaminated by accidental release of any hazardous materials.

In general, the Contractor shall maintain awareness of potential signs of soil and groundwater contamination throughout the project limits and shall notify the District immediately upon discovery of any potential soil or groundwater contamination.

If hazardous materials are encountered during construction or occur as a result of an accidental spill, the contractor shall halt construction immediately, notify the District, and implement remediation in accordance with the project specifications and applicable requirements of the Regional Board. Disposal of all hazardous materials shall be in compliance with current California hazardous waste disposal laws.

X HYDROLOGY & WATER QUALITY

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	□	□	□	■
b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	□	□	□	■
c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in a substantial erosion or siltation on- or off-site?	□	□	□	■
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?	□	□	□	■
iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	□	□	□	■
iv. impede or redirect flows?	□	□	□	■
d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?	□	□	□	■
e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	□	■	□	□

Environmental Setting

SURFACE WATER

The proposed project site is located at the northerly end of the Russian River watershed. This watershed covers approximately 1,485 square miles and includes portions of Mendocino and Sonoma counties. There are numerous streams in the project area, as shown on Figure 20. There are no designated wild or scenic rivers in the immediate project area, as shown on Figure 21.

GROUNDWATER RESOURCES

The District's water supply is from Lake Mendocino and is not dependent on ground water.. There are numerous private groundwater wells within the District service area in use for domestic and irrigation purposes. The proposed project does not include any new wells. As shown on Figure 22, the project is located at the northern end of the Ukiah Valley Aquifer.

FLOODING

The Russian River flows from north to south through the District. Portions of the District are located within the designated FEMA floodplain, as shown on Figure 23. None of the proposed project locations are located within designated flood zones.

Regulatory Setting

Clean Water Act

Important applicable sections of the federal CWA (33 USC 1251–1376) are identified below:

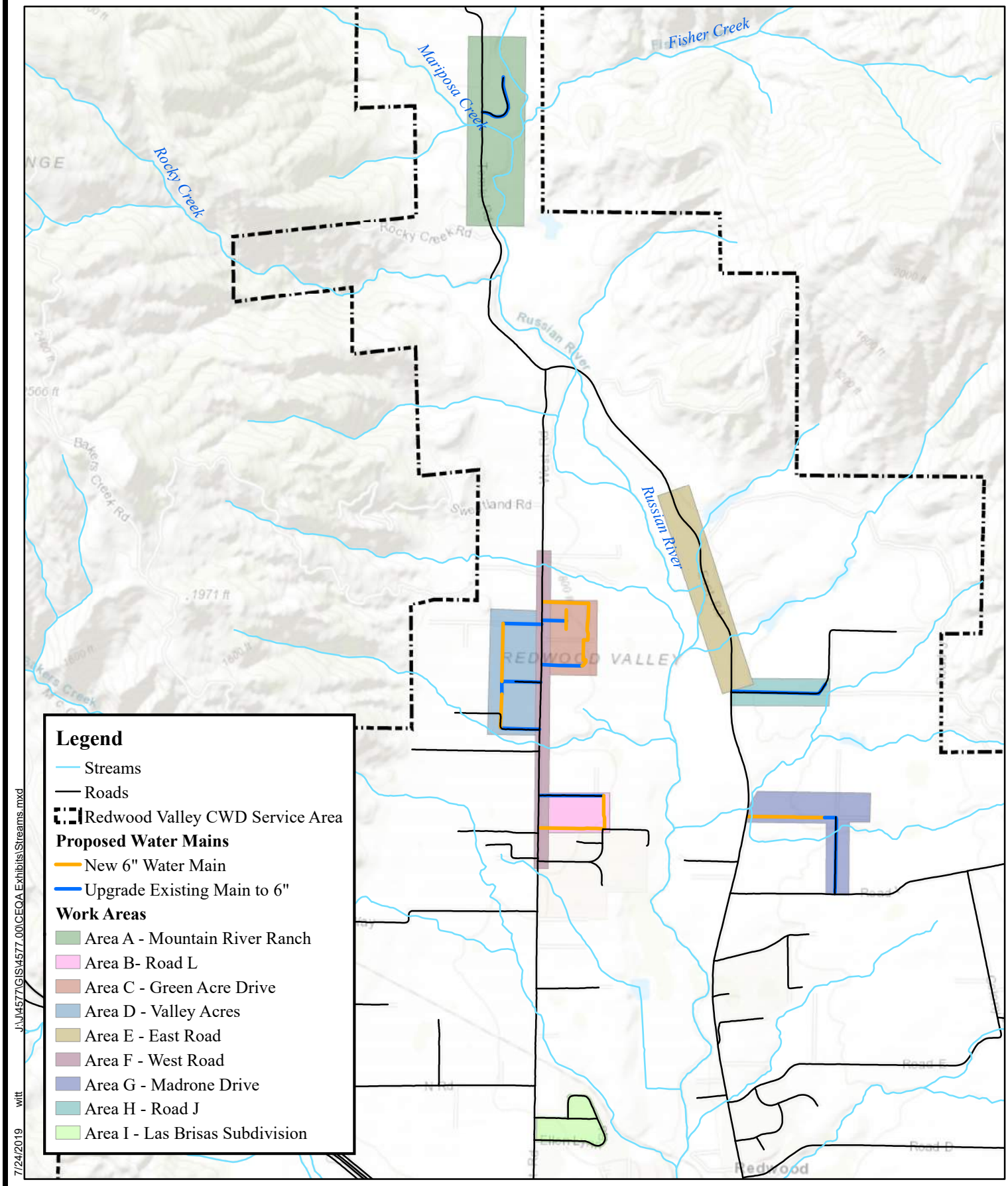
- Sections 303 and 304 provide water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for any federal permit that proposes an activity that may result in a discharge to waters of the United States to obtain certification from the state that the discharge will comply with other provisions of the CWA. Certification is provided by the Regional Water Quality Control Board (RWQCB).
- Section 402 establishes the NPDES permitting system for the discharge of any pollutant (except for dredged or fill material) into waters of the United States. This permit program is administered by the RWQCB.

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) is responsible for implementing the Clean Water Act and issues NPDES permits to cities and counties through regional water quality control boards. The project location is regulated by the North Coast Regional Water Quality Control Board (Regional Board).

The SWRCB has issued a statewide General Permit (Water Quality Order No. 99-08-DWQ) for construction activities within the state. The Construction General Permit (CGP) is implemented and enforced by the RWQCBs. The CGP applies to construction activity that disturbs one acre or more and requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP) that identifies best management practices (BMPs) to minimize pollutants from discharging from the construction site to the maximum extent practicable.

The SWRCB has also issued a statewide General Permit (Water Quality Order No. 97-03-DWQ) for regulating stormwater discharges associated with industrial activities. This General Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable and best conventional pollutant control technology. It also requires the development of a SWPPP, a monitoring plan, and the filing of an annual report.



Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Streams: California Department of Fish and Wildlife (2018)

NORTH

0 0.125 0.25 0.5 Miles

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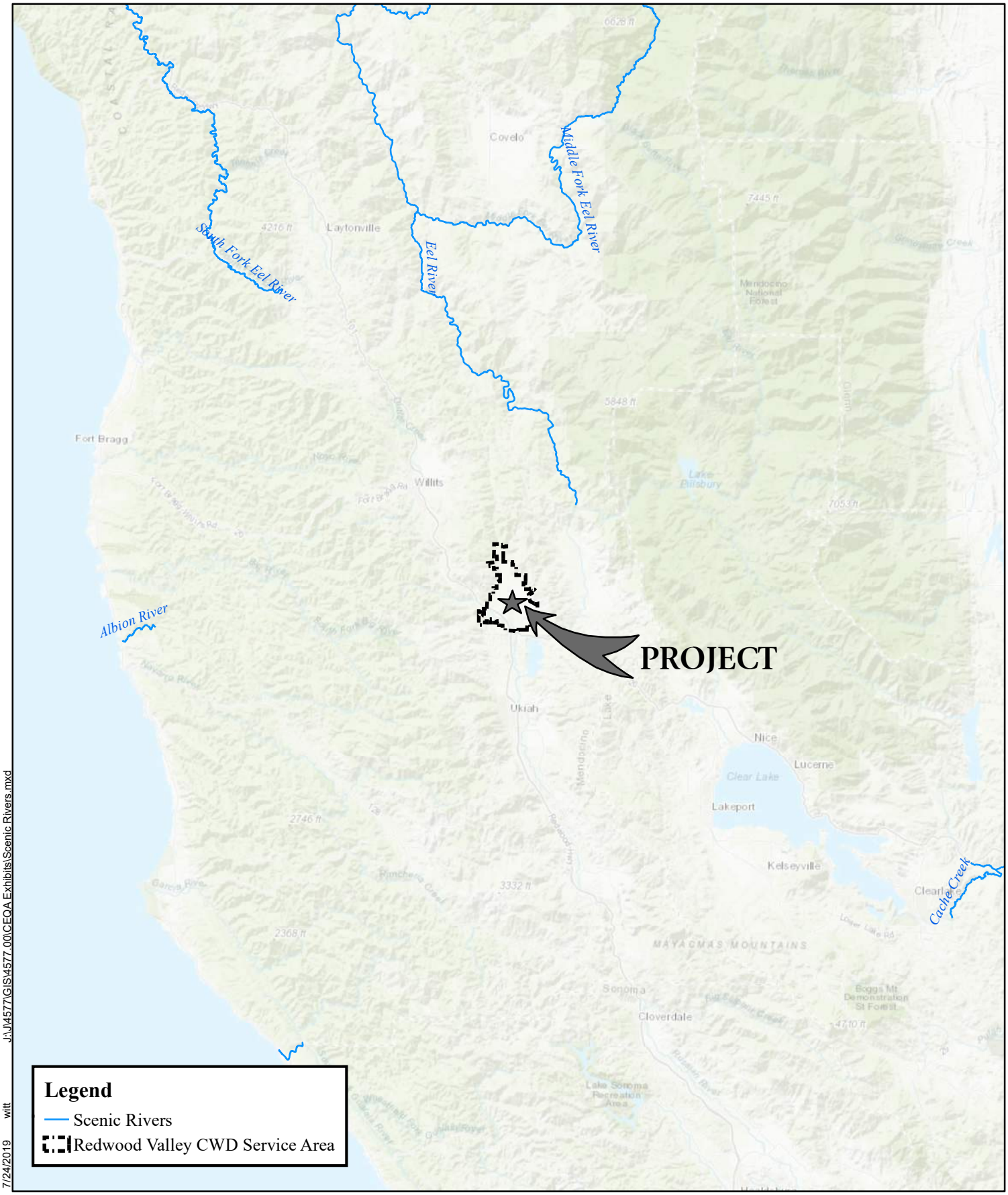
FIGURE 20

SURFACE WATERS

REWOOD VALLEY COUNTY WATER DISTRICT
AUGUST 2019



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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Scenic Rivers: California Department of Fish and Wildlife (2018)

NORTH

0 2.5 5 10 Miles

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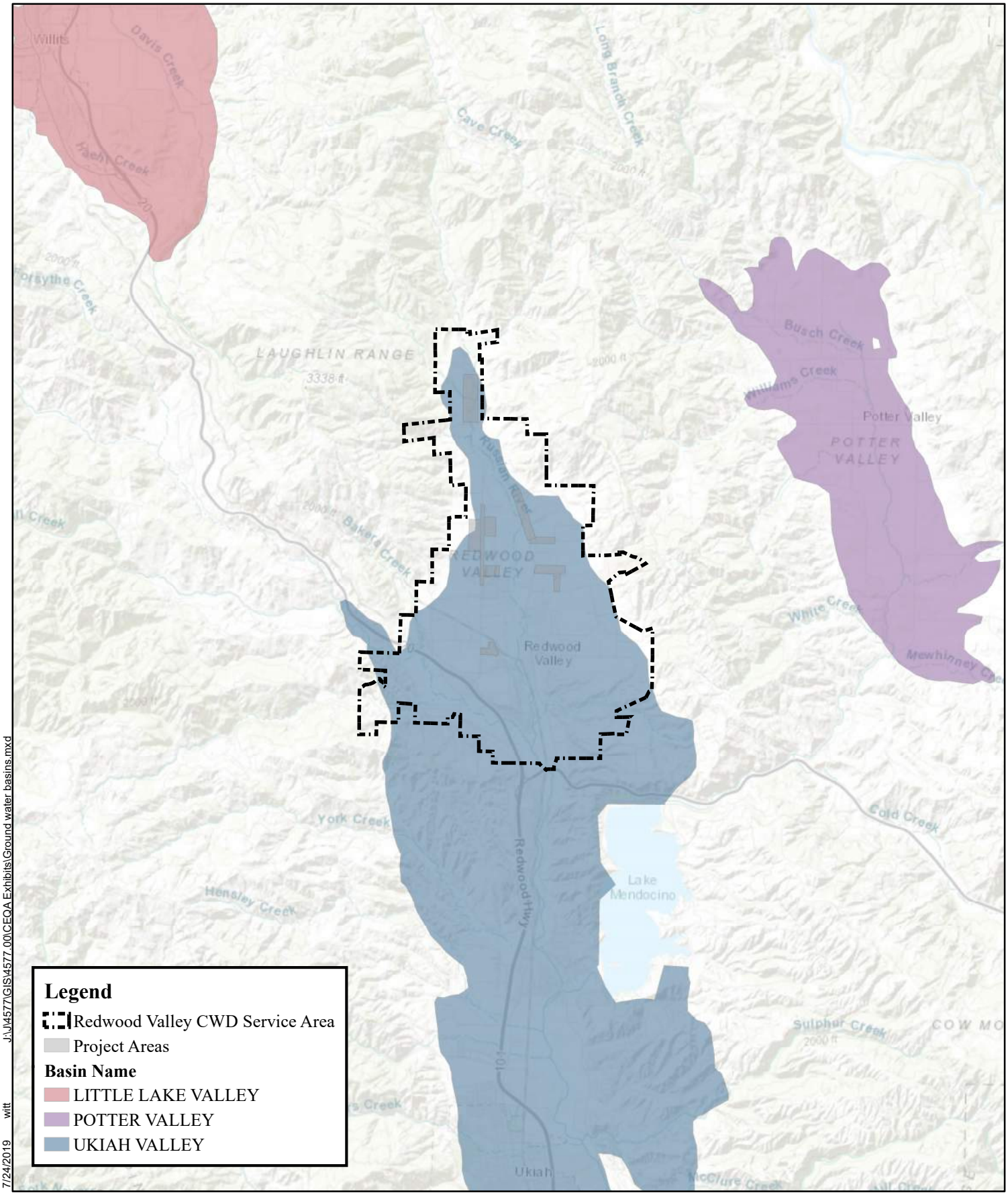
FIGURE 21

SCENIC RIVERS

REWOOD VALLEY COUNTY WATER DISTRICT
AUGUST 2019



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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Ground Water Basins: California Division of Water Resources (2018)

NORTH

0 0.5 1 2 Miles

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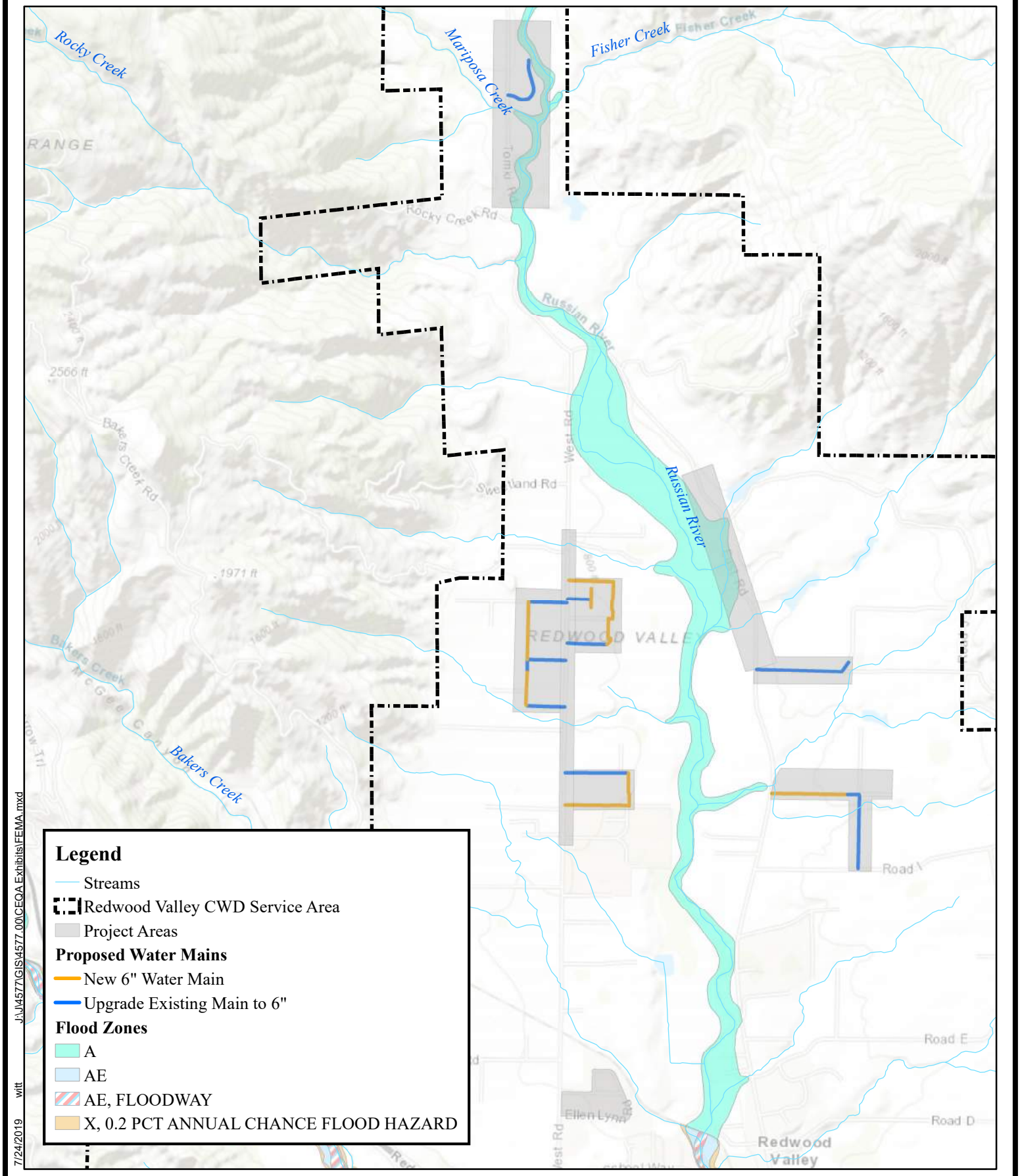
FIGURE 22

GROUNDWATER BASINS

REWOOD VALLEY COUNTY WATER DISTRICT
AUGUST 2019



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Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Flood Plains: FEMA (2109)

NORTH

0 0.125 0.25 0.5 Miles

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FIGURE 23

FEMA FLOOD ZONES

REWOOD VALLEY COUNTY WATER DISTRICT
AUGUST 2019

Porter-Cologne Water Quality Act

The State of California's Porter-Cologne Water Quality Control Act (California Water Code, Section 13000 et seq.) provides the basis for water quality regulation in California. This Act requires a Report of Waste Discharge for any discharge of waste (liquid, solid, or otherwise) to land or surface waters that may impair a beneficial use of surface or groundwater of the state. Based on the report, the RWQCBs issue waste discharge requirements to minimize the effect of the discharge.

Analysis

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The project has the potential to cause construction-related violations of water quality standards. Implementation of the proposed project would involve excavation, grading, and other construction activities involving soil disturbance at all locations that may impact water quality by increasing the potential for erosion and sedimentation. Soil disturbance associated with construction activities may cause accelerated soil erosion and sedimentation and/or the release of pollutants to downstream properties and facilities that could impact water quality standards or waste discharge requirements.

The State General Construction Activity Storm Water Permit (CGP) applies to construction activities that disturb one acre or more and requires the preparation and implementation of a SWPPP. As indicated in the Geology and Soils section, the project would have a total disturbance area of approximately 2.3 acres and would be subject to coverage under the State Water Resources Control Board (SWRCB) Construction General Permit. Compliance with the General Permit would require filing a Notice of Intent (NOI) with the SWRCB and development and implementation of a SWPPP. The project would also include an erosion control plan as part of the plans and specifications. Compliance with the General Permit would minimize the potential for erosion-related impacts to surface waters to the extent possible. Because the project would comply with current regulations to limit erosion-related water quality impacts during and after construction, there would be no impact.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Water has been and would continue to be provided by the District's existing water supply coming from Lake Mendocino. Clarify water from interties. The proposed project would replace and intertie portions of the existing water distribution system to improve system resiliency. The project is not growth inducing and would not impact existing demands or groundwater levels in the project area or elsewhere. The project does not introduce any new impervious surfaces (existing surfaces would be restored to existing conditions) and would not substantially interfere with groundwater recharge or groundwater basin management.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

c.i. result in a substantial erosion or siltation on- or off-site?

The project would not substantially alter the existing area drainage at any of the project locations. No new impermeable surfaces would be introduced and existing surfaces would be restored, consistent with the General Permit.

c.ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?

The project would not alter the course of a stream or river and would not substantially alter the existing drainage pattern of the project areas. As shown on Figure 23, portions of the District are within flood zones but project elements are not. The project would not substantially increase the rate or amount of surface runoff.

c.iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The project does not significantly alter existing grades in the project area or introduce any new impervious surfaces that would impact local stormwater systems or result in substantial additional sources of polluted runoff. There is currently no post-construction stormwater treatment in the project area and none is proposed by the project due to its subterranean nature and lack of significant impervious surfaces.

c.iv. Would the project impede or redirect flows?

The project locations are not within a mapped 100-year flood hazard area, as shown on Figure 23. The project would not impede or redirect flood flows.

d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The majority of the District is not within a mapped 100-year flood hazard area. None of the project locations would be in a flood hazard, tsunami, or seiche zones and would not risk release of pollutants in the unlikely event it they were inundated.

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Please see a.), above.

Cumulative Impacts

There are no adverse cumulative environmental impacts to hydrology/water quality resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to hydrology/water quality have been identified; therefore, no mitigation is required.

XI LAND USE & PLANNING

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project physically divide an established community?	□	□	□	■
b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	□	□	□	■

Development in the project area is governed by the County of Mendocino General Plan and Zoning Ordinance. The Redwood Valley Municipal Advisory Council is in the process of updating the 2004 Redwood Valley Community Action Plan. The plan includes goals and objectives to guide community development and design guidelines consistent with current and desired future character.

Analysis

a. Would the project physically divide an established community?

The project would not physically divide an established community. The project occurs within existing roadways and gravel driveways. Roadways would be restored upon completion of the project. Implementation of the project would improve system resiliency, a beneficial impact.

b. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project would not conflict with any applicable land use plan, policy or regulation. All project components occur within public right of way or within public utility easements (existing or to be purchased).

Cumulative Impacts

There are no adverse cumulative environmental impacts to land use and planning resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to land use and planning have been identified; therefore, no mitigation is required.

XII MINERAL RESOURCES

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project 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. Would the project 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?	□	□	□	■

Environmental Setting

MENDOCINO COUNTY GENERAL PLAN

No applicable general plan or specific plan indicates that there are mineral resources of value or importance in the project area.

Analysis

a. Would the project 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?

The project site does not include any known mineral resource that would be of value to the region and the residents of the state. The project would not affect the availability of any such resource.

b. Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The project area is not delineated in the County's General Plan as a locally important mineral resource recovery site.

Cumulative Impacts

There are no adverse cumulative environmental impacts to mineral resources resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to mineral resources have been identified; therefore, no mitigation is required.

XIII NOISE

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	□	■	□	□
b. Would the project result in generation of excessive ground borne vibration or ground borne noise levels?	□	□	□	■
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	□	□	□	■

Environmental Setting

This section includes a description of the terminology and concepts related to noise and vibration impacts that are considered in the analysis. This section also includes a discussion of the existing environmental conditions related to noise-sensitive receptors and ambient conditions found in rural areas such as the project vicinity.

NOISE-SENSITIVE USES

Noise-sensitive land uses in the project area are nearby single and multi-family residences. There are residential uses located adjacent to all of the proposed project locations.

NOISE CONDITIONS

Existing ambient sound levels in the project area can be considered typical of a rural residential environment. Sources of noise in the area come primarily from farming equipment and traffic along local two-lane roadways.

CONSTRUCTION NOISE

The types of equipment that would be used to construct the proposed pipeline include dump trucks, backhoes, compactors, compressors, tracked excavators, forklifts, front-end loaders, jackhammers, paving equipment, flat-bed delivery trucks (pickup trucks), and water trucks.

The table below presents the typical noise levels for the construction equipment listed above based on a worst-case scenario including several pieces of the loudest equipment (running simultaneously). This includes

the typical measured A-weighted Lmax noise levels (maximum noise level) that would occur at a 50-foot distance from the construction site. The acoustical use factor is the fraction of time that the equipment would typically be in use over a 1-hour period.

Equipment	Acoustical Use Factor	Typical Noise Level (Lmax)[1]
Asphalt/Concrete Truck[2]	40%	76
Backhoe	40%	78
Compactor	20%	83
Compressor	40%	78
Crane	16%	81
Dump Truck	40%	76
Excavator	40%	81
Forklift[3]	40%	75
Front-End Loader	40%	79
Jackhammer	20%	89
Paver	50%	77
Pickup Truck	40%	75
Roller	20%	80
Water Truck[2]	40%	76

Source: Federal Highway Administration 2006

1 dBA, A-weighted decibel level (measured at 50 feet)

2 Based on data for dump truck

3 Based on data for pickup truck

OPERATIONAL NOISE

During operation, the proposed project would not create noise that would be audible. Water mains would be installed below ground and do not emit noise.

Regulatory Setting

LOCAL REGULATIONS

Mendocino County General Plan Noise Exposure Limits

The General Plan and zoning ordinance are the primary ways the County regulates noise levels and compatible uses. Policy DE-101 sets noise compatibility guidelines for determining the general compatibility of planned land uses, as shown below.

Land Use	Completely Compatible	Tentatively Compatible	Normally Incompatible	Completely Incompatible
Residential	Less than 55 dBA	55-60 dBA	60-75 dBA	Greater than 75 dBA
Commercial	Less than 65 dBA	65-75 dBA	75-80 dBA	Greater than 80 dBA
Industrial	Less than 70 dBA	70-80 dBA	80-85 dBA	Greater than 85 dBA

All values expressed as a 24-hour day-night average or ldn.

The County does not have an ordinance or General Plan policy related to reducing construction noise.

Analysis

a. Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The project would not result in any significant long-term increases in noise levels in the project vicinity and would be consistent with General Plan Policy DE-101. Homes in the project vicinities would be subject to construction-related noise.

Based on typical noise levels associated with equipment used to construct pipelines contained in the table presented previously, construction activities are expected to result in a temporary increase in noise levels that exceed the County's established noise criteria. However, these impacts are temporary and construction-related. It is anticipated that the pipeline construction would average approximately 100 feet per day so no one location would be impacted by excessive noise levels for more than a few days at a time. Mitigation Measure N1 would reduce such temporary construction-related noise to a less than significant level.

b. Would the project result in generation of excessive ground borne vibration or ground borne noise levels?

Implementation of the project would not result in the exposure of people to or the generation of groundborne vibration or noise levels. No pile driving, blasting, or similar construction techniques that would generate such vibration are required.

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

There are no active public use airports within two miles of the project area. The project would not alter the existing noise environment resulting from air traffic.

Cumulative Impacts

There are no adverse cumulative environmental impacts to noise resulting from implementation of the proposed project.

Mitigation Measures

N1

The following measures shall be implemented at the construction site to reduce the effects of construction noise on adjacent residences:

- Noise-generating activities at the construction sites or in areas adjacent to the construction sites associated with the project in any way shall generally be restricted to the hours of 7:00 a.m. to 7:00 p.m. Any work outside of these hours shall require special permission from the District. There should be a compelling reason for permitting construction outside the designated hours.
- The District shall provide notice to all residents within 100 feet of the construction activities at least 48 hours prior to commencing construction. The notice shall include the contact information for the District's noise disturbance coordinator and the anticipated construction schedule.
- All internal combustion engine driven equipment shall be equipped with intake and exhaust mufflers which are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- Staging of construction equipment and all stationary noise-generating construction equipment, such as air compressors and portable power generators, shall be staged as far as practical from existing noise sensitive receptors.
- "Quiet" air compressors and other "quiet" stationary noise sources shall be utilized where technology exists.
- Noise from construction workers' radios shall be controlled to the point where radio noise is not audible at existing residences bordering the project site.

XIV POPULATION & HOUSING

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	□	□	□	■
b. Would the project displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	□	□	□	■

Analysis

a. Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The District is currently under a service connection moratorium and this project would not alter that condition. The project would not induce population growth. The project would provide system resiliency. No additional water supplies would be included in the project.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No housing would be displaced by the project. The project would specifically be intended to facilitate the long-term ability to provide the existing community with continued water service.

Cumulative Impacts

There are no adverse cumulative environmental impacts to population and housing resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to population and housing have been identified; therefore, no mitigation is required.

XV PUBLIC SERVICES

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
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:				
i. Fire protection?	□	□	□	■
ii. Police protection?	□	□	□	■
iii. Schools?	□	□	□	■
iv. Parks?	□	□	□	■
v. Other public facilities?	□	□	□	■

Environmental Setting

The project area falls within the jurisdiction of the Mendocino County Sheriff. The project is located entirely within the Redwood Valley Calpella Fire District and is served by the Redwood Valley Calpella Fire Department located at 8481 East Rd. The project area is served by the Ukiah Unified School District.

Analysis

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:

a.i. Fire protection?

The project would not have any negative effect on fire protection services. The project does not alter above ground conditions or access to/from the project area.

a.ii. Police protection?

The project is not growth inducing and would not impact police protection.

a.iii. Schools?

The proposed project is a water system resiliency project and would not have a long-term impact to schools.

a.iv. Parks?

The project would not impact any parks.

a.v. Other public facilities?

The project would not impact other public facilities.

Cumulative Impacts

There are no adverse cumulative environmental impacts to public services resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to public services have been identified; therefore, no mitigation is required.

XVI RECREATION

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	□	□	□	■
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	□	□	□	■

Environmental Setting

There are no neighborhood or regional parks or other recreational facilities immediately adjacent to the project areas. The closest formal recreation areas include the county-operated Redwood Valley Lions Club Park, located at 8920 East Road, city-operated parks in Ukiah and Lake Mendocino.

Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The project is not growth inducing and would not increase use of existing neighborhood and regional parks or other recreational facilities. The project would not impact any parks.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The project does not include recreational facilities or alter such facilities in any way.

Cumulative Impacts

There are no adverse cumulative environmental impacts to recreation resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to recreation have been identified; therefore, no mitigation is required.

XVII TRANSPORTATION

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	□	□	□	■
b. Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	□	■	□	□
c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	□	□	□	■
d. Would the project result in inadequate emergency access?	□	■	□	□

Environmental Setting

The project area is located in the rural residential community of Redwood Valley, north of the City of Ukiah. Primary access to the area is the Highway 101 corridor and Highway 20. Two main roads, West Road and East Road, provide access to the roadway network on either side of the Russian River within the community.

Analysis

a. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

The project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. The project would be partially located within roadways but would not have a long-term impact on an applicable transportation plan, ordinance, or policy as the facilities would be located mainly beneath roads.

b. Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

The project would not conflict with and is not inconsistent with CEQA Guidelines § 15064.3, subdivision (b). The project would not increase vehicle trips to or from the project area. Where the project impacts roadways, roadway surfaces would be restored to existing conditions or improved upon project completion.

Roadways would be impacted by short-term construction associated with water main construction. Construction would reduce access to vehicle, pedestrian, and bike traffic within those locations. Standard traffic control mitigation provided, in TT1, would reduce these impacts and ensure traffic flow and access to driveways when active construction is not underway.

c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The project would not increase design hazards. Road surfaces would be restored to existing conditions in the portions of the water main constructed in roadways.

d. Would the project result in inadequate emergency access?

The project would not have any long-term impact to emergency access since roadways would be restored to existing conditions. Construction in roadways could impact emergency response during construction. Mitigation Measure TT2 requires the contractor to maintain emergency access and reduces such impact to less than significant.

Cumulative Impacts

There are no adverse cumulative environmental impacts to transportation/traffic resulting from implementation of the proposed project.

Mitigation Measures

TT1

The contractor shall develop and submit an appropriate Traffic Control Plan (TCP) in accordance with the California Manual of Uniform Traffic Control Devices (MUTCD) for review and approval by the District and County for all project elements that impact traffic circulation. The TCP shall also include notifying adjacent residents of the construction schedule and when it will impact access. The TCP shall ensure through traffic and temporary driveway access during periods where active construction is not taking place.

TT2

The contractor shall provide advanced notice regarding timing, location and the duration of construction activities to local emergency responders. The contractor shall ensure emergency responders can have access through construction areas in roadways at all times.

XVIII TRIBAL CULTURAL RESOURCES

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

REGULATORY SETTING

Assembly Bill 52 (AB52), the Native American Historic Resource Protection Act, sets forth a proactive approach intended to reduce the potential for delay and conflicts between Native American and development interests. AB52 established a formal consultation process of California Native American Tribes to be conducted during the CEQA process. All projects that file a Notice of Intent to adopt a Mitigated Negative Declaration after July 1, 2016, are subject to AB52 which added tribal cultural resources (TCR) protection under CEQA. A TCR is defined as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register, or included in a local register of historical resources. A Native American Tribe or the lead agency, supported by substantial evidence, may choose at its discretion to treat a resource as a TCR. AB52 also mandates lead agencies to consult with tribes, if requested by the tribe, and sets the principles for conducting and concluding consultation.

Analysis

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

a.i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

As indicated in the Cultural Resources section, Tom Origer & Associates prepared a Cultural Resources Assessment for the project in August, 2019[26].

The ethnographic site of *kä'chä* is reportedly located in Redwood Valley. No evidence of P-23-002886 (ethnographic site of *kä'chä*) was found during the survey. The plotted location of P-23-002886 is based on interviews with Omer Stewart and Native American informants, not on an actual site visit. Caretti et al. (2017) monitored the installation of utility poles within the mapped location of the site and saw no evidence of a village. It appears that the location of the village is misplotted.

Origer & Associates' review of 19th and 20th-century maps revealed no buildings within the APE. There are no buildings or structures within the APE and installation of buried lateral water lines will have no impact on buildings that are within sight of the APE.

Origer & Associates determined there would be no impact to existing known historical resources. However, there is always the possibility of accidental discovery of historical resources during construction. In the event resources are discovered, mitigation measure CR1, contained in the Cultural Resources section, would reduce such impact to less than significant.

a.ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Known archaeological resources were described in the Cultural Resources section of this document. The ethnographic site of *kä'chä* is reportedly located in Redwood Valley. No evidence of P-23-002886 (ethnographic site of *kä'chä*) was found during the survey. The plotted location of P-23-002886 is based on interviews with Omer Stewart and Native American informants, not on an actual site visit. Caretti et al. (2017) monitored the installation of utility poles within the mapped location of the site and saw no evidence of a village. It appears that the location of the village is misplotted.

No new archaeological site indicators were found during the course of the survey. Analysis of the buried site potential showed that only a small area of the APE had a high potential. All other

[26] Cultural Resources Study for the Redwood Valley Water Infrastructure Retrofit Project. Tom Origer & Associates. August 19, 2019.

portions of the APE had a very low potential for buried archaeological resources. Subsurface soils were examined in a creek bank at the location of high sensitivity and no buried archaeological site indicators were observed.

As part of the AB52 tribal consultation process, project information was sent via certified mail to the following tribes by the District on June 27, 2019:

- Coyote Valley Band of Pomo Indians
- Guidiville Band of Pomo Indians
- Deborah Hutt (no Tribal affiliation listed)
- InterTribal Sinkyone Wilderness Council
- Laytonville Rancheria
- Manchester-Point Arena Rancheria
- Noyo River Indian Community
- Pinoleville Pomo Nation
- Potter Valley Tribe
- Redwood Valley Rancheria of Pomo
- Round Valley Indian Tribes of the Round Valley Reservation
- Shebelna Band of Mendocino Coast Pomo Indians
- Sherwood Valley Band of Pomo
- Hopland Band of Pomo Indians

Follow-up phone calls were placed to all tribes on July 11, 2017. No comments have been received as of publication of this Initial Study.

Based on Origer & Associates conclusion that no archaeological resources would be impacted and none of the contacted tribes requesting consultation, it is considered unlikely that the project would impact Tribal Cultural Resources. However, there is always the possibility of accidental discovery of archaeological resources during construction. In the event resources are discovered implementation of mitigation measure CR1, contained in the Cultural Resources section, would reduce such impact to less than significant.

Cumulative Impacts

There are no adverse cumulative environmental impacts to tribal cultural resources resulting from implementation of the proposed project.

Mitigation Measures

Please see Mitigation Measure CR1 contained in the Cultural Resources section.

XIX UTILITIES & SERVICE SYSTEMS

	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	□	□	□	■
b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	□	□	□	■
c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	□	□	□	■
d. Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	□	□	□	■
e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	□	□	□	■

Environmental Setting

The District currently provides water service to the project area. Solid waste disposal and recycling is provided by the Mendocino Solid Waste Management Authority (MendoRecycle). Wastewater treatment in the project area is provided by individual septic systems. Electricity and natural gas delivery infrastructure is provided by PG&E. Telephone and internet service are provided by AT&T and Comcast, respectively.

Analysis

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The project would not require or result in the relocation or construction of new or expanded wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. The project includes upgrading existing water mains and installing new water mains and is subject to environmental review in this document. The project would be designed to avoid impact to other existing

utilities. The project is not growth inducing and would not increase demand for utilities in the service areas.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The project is a water system resiliency project, is not growth inducing, and would not increase demand for water. Existing water supplies are sufficient to meet existing demands and no new entitlements are required.

c. Would the project 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?

The project does not alter the existing septic systems in the project area.

d. Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

No increase in solid waste generation would occur as the project would not increase solid waste demands or impair attainment of solid waste reduction goals. Demolition materials from replacement of water mains would be processed according to state regulations.

e. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The project would comply with federal, state, and local statutes and regulations related to solid waste.

Cumulative Impacts

There are no adverse cumulative environmental impacts to utilities and service systems resulting from implementation of the proposed project.

Mitigation Measures

No adverse environmental impacts to utilities and service systems have been identified; therefore, no mitigation is required.

XX WILDFIRE

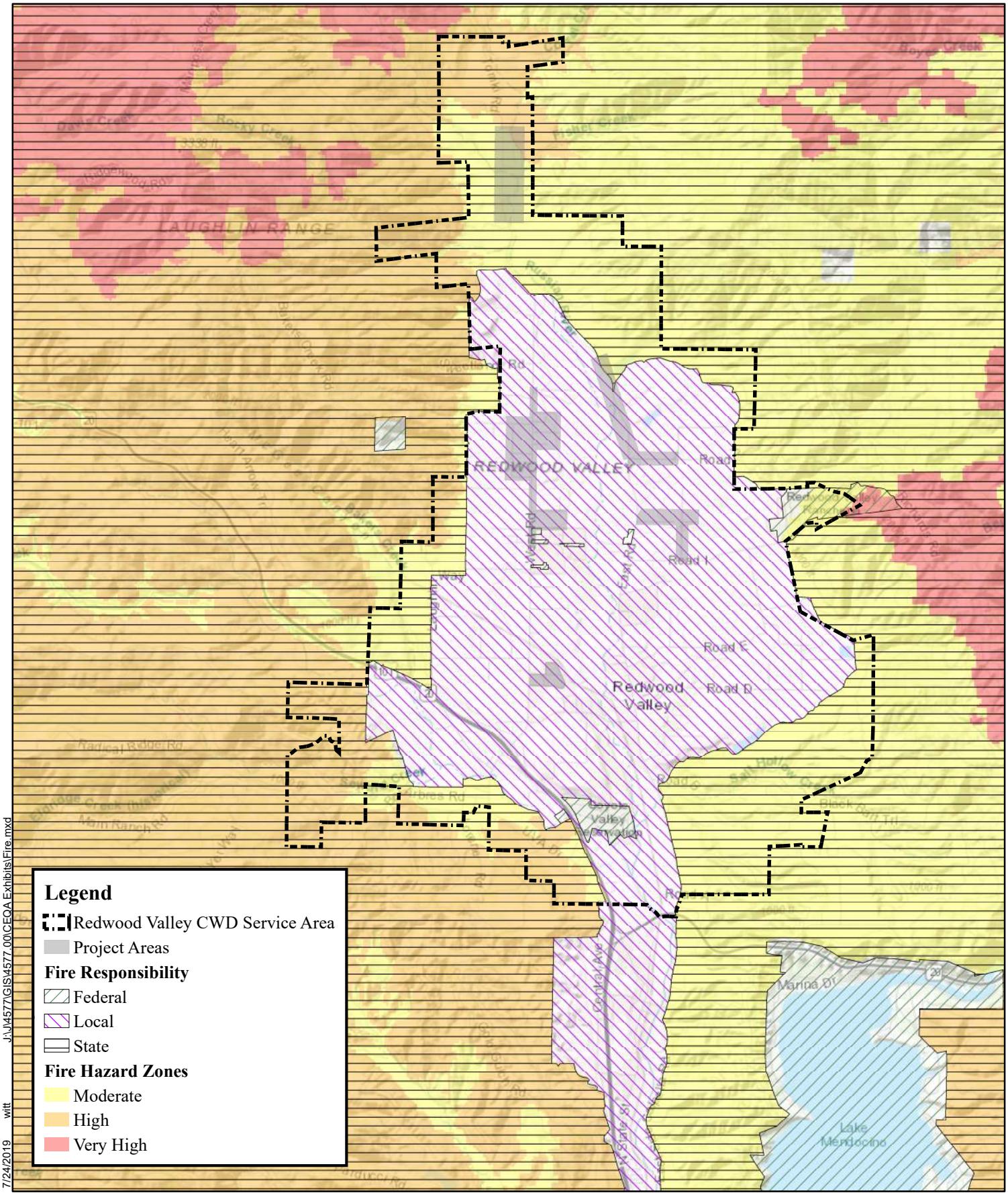
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially significant impact	Less than significant impact with mitigation incorporation	Less than significant impact	No impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	□	■	□	□
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	□	□	□	■
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	□	□	□	■
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	□	□	□	■

Environmental Setting

The Mendocino County Office of Emergency Services (OES) coordinates emergency response planning in unincorporated Mendocino County. OES has assessed potential risks to the County through development of its Mendocino County Multi-Hazard Mitigation Plan. Primary threats to the project area identified in the plan include earthquakes and aftershocks, hazardous materials releases, floods, landslides, national security incidents, and wildfires.

The County has also prepared the Mendocino County Operational Area Emergency Operations Plan (EOP) that serves as the primary guide for coordinating and responding to all emergencies and disasters within the county. Local emergency and fire protection services are provided by the Mendocino County Sheriff and the Redwood Valley Calpella Fire District.

Wildland fire is a serious risk in the project area. The 2017 Redwood Valley Fire destroyed approximately 200 homes (15 percent) served by the District. The District is located within local and state responsibility areas, as shown on Figure 24, and is designated as Moderate to High Fire Severity Zone. Historic wildland fires in and around the District are shown on Figure 25.



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witt
7/24/2019

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Fire Severity: CalFire (2018)
Responsibility Area: CalFire (2108)

NORTH

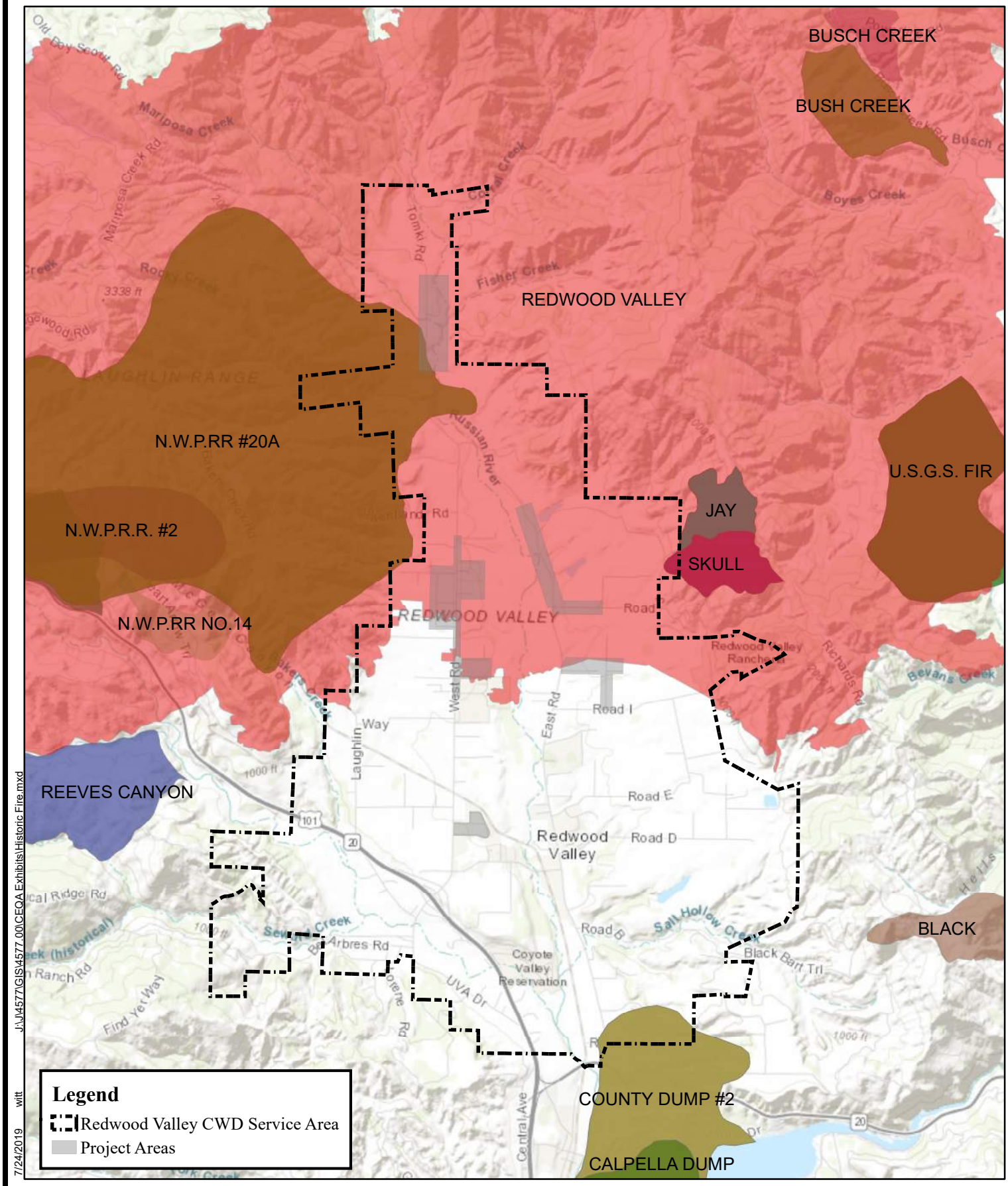
0 0.25 0.5 1 Miles

Brelje & Race CONSULTING ENGINEERS
475 Aviation Blvd. Suite 220, Santa Rosa, CA 95403

FIGURE 24

FIRE SEVERITY ZONES

REWOOD VALLEY COUNTY WATER DISTRICT
AUGUST 2019



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7/24/2019

Coordinate System: NAD 1983 StatePlane California II FIPS 0402 Feet
Projection: Lambert Conformal Conic
Datum: North American 1983
Units: Foot US

Data Source Information:
Historic Fires: CalFire (2018)

NORTH

0 0.25 0.5 1 Miles

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475 Aviation Blvd. Suite 120, Santa Rosa, CA 95403

FIGURE 25

HISTORIC WILDFIRES

REWOOD VALLEY COUNTY WATER DISTRICT
AUGUST 2019

Analysis

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The project would not substantially impair an adopted emergency response plan or emergency evacuation plan. The project would not have any long-term impact to emergency access since roadways would be restored to existing conditions. Construction in roadways could impact emergency response during construction. Mitigation Measure TT2, in the Transportation section, requires the contractor to maintain emergency access and reduces such impact to less than significant.

b. Would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The project would modify existing infrastructure, including construction of below ground water mains. The project would not exacerbate wildfire risks. The project would increase firefighting capabilities in the area by facilitating future installation of fire hydrants.

c. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

The project would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk. The project would increase firefighting capabilities in the area by facilitating future installation of fire hydrants.

d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The project would not alter existing risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The project would increase firefighting capabilities in the area by facilitating future installation of fire hydrants.

Cumulative Impacts

There are no adverse cumulative environmental impacts from wildfire resulting from implementation of the proposed project.

Mitigation Measures

Please see Mitigation Measure TT1 contained in the Traffic section.

XXI MANDATORY FINDINGS OF SIGNIFICANCE

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

With implementation of the mitigation measures provided in this document, the project would not have a significant adverse impact on the habitat of any plant or animal species or historic or prehistoric resources. Furthermore, the project would not substantially degrade the environment or reduce the level of an endangered or otherwise important plant or animal population below self-sustaining levels. This impact would be considered less than significant with incorporation of the proposed mitigation measures contained in this document.

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)?

Implementation of the proposed mitigation measures would reduce impacts to less than significant levels. Because no impact is considered to be individually significant, there would be no contribution to a significant cumulative effect. Therefore, this impact would be less than significant with incorporation of the proposed mitigation measures.

c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

With implementation of the mitigation measures provided in this document, the project would not be expected to cause substantial adverse effects on human beings either directly or indirectly. Mitigation measures would reduce any such potential to less than significant.

DETERMINATION

On the basis of this initial evaluation:

- ☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ■ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

Dave Redding, General Manger

Printed Name

Date 8/28/19

For:

Redwood Valley County Water District

DOCUMENT PREPARATION AND SOURCES

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Paleontological Collecting. 1987. National Academy Press. Washington, DC.

Websites

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Prepared by:

Justin Witt—Environmental Planner

APPENDIX A: MITIGATION MONITORING AND REPORTING PLAN

Redwood Valley Water Infrastructure Resiliency Project
August 2019

Pursuant to Section 21081.6 of the State CEQA Guidelines[1], the mitigation measures listed in this Mitigation Monitoring and Reporting Plan (MMRP) are to be implemented as part of the proposed project. The MMRP identifies the time at which each mitigation measure is to be implemented and the person or entity responsible for implementation. The initials of the designated responsible person will indicate completion of their portion of the mitigation measure. The Redwood Valley County Water District (District) project manager's signature on the Certification of Compliance will indicate complete implementation of the MMRP.

The mitigation measures included in the MMRP are considered conditions of approval of the proposed project. The District agrees to implement the mitigation measures proposed in the MMRP. Implementation of the mitigation measures included in the MMRP is expected to avoid, minimize, rectify, reduce, or compensate potentially significant impacts to a less than significant level.

TIME OF IMPLEMENTATION

Project Design:	The mitigation measure will be incorporated into the project design and/or included in the project specifications and contract special provisions prior to issuing final permits.
Pre-construction:	The mitigation measure will be implemented prior to project construction.
Construction:	The mitigation measure will be implemented during construction.

RESPONSIBLE PERSONS AND DEPARTMENTS

The District as Lead Agency will be responsible for the overall implementation of the MMRP. The District's project manager will oversee the project's compliance with the MMRP. The District's project manager will sign off on the mitigation measures included in the MMRP. Periodically, other District staff, consultants or regulatory agencies will be involved in the implementation of specific mitigation measures. In these instances, the staff, department, or agency will be identified in the MMRP.

CERTIFICATION OF COMPLIANCE

The District will be responsible for providing signatures on the Certification of Compliance. The Certification of Compliance is a double-check to ensure that the MMRP was fully implemented.

RECORD KEEPING

The District's project manager will maintain the records of the MMRP. When the MMRP is fully implemented, the original signed copy will be maintained by the District.

1 California Code of Regulations Title 14.

CERTIFICATION OF COMPLIANCE

Complete the Certification of Compliance after mitigation measures have all been initialed. Use this Certification of Compliance to ensure the full implementation of each mitigation measure.

Project Design

The District's project manager has reviewed the project design, the plans, and the contract special provisions to verify that designated mitigation measures have been incorporated.

Signature & title Date

Pre-construction

The District's project manager has verified that designated mitigation measures were implemented prior to construction.

Signature & title Date

Construction

The District's project manager has verified that designated mitigation measures were implemented during construction.

Signature & title Date

AIR QUALITY

AQ1 The following Feasible Control Measures, as described by the Bay Area Air Quality Management District, shall be implemented during construction to minimize fugitive dust and emissions:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day or be covered.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed or stabilized as soon as possible. Building slabs shall be poured as soon as possible after grading unless seeding or soil binders are used to stabilize the pad.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
- A publicly visible sign shall be posted with the telephone number and person to contact at the District regarding dust complaints. This person shall respond and take corrective action within 48 hours. The MCAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

Implementation & Monitoring

Project Design: The District's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials Date

Construction: The District's project manager or District grading inspector and building inspector(s) shall ensure that Mitigation Measure AQ1 is being complied with during construction. Failure to comply shall result in issuance of a stop work order until corrective action has been taken.

Initials Date

BIOLOGICAL RESOURCES

BIO1 For project areas that occur in non-disturbed areas, appropriately timed surveys for congested-headed tarplant shall be completed in June or July, depending on the rainy season, prior to project construction to document the presence or absence of the species within the project area. If the species is observed, measures to avoid or minimize potential impacts should be implemented as described below. If the species is not observed, no further actions would be needed.

If congested-headed tarplant is observed in the project area, the extent of the population should be flagged by a qualified biologist using appropriate buffers, which should be determined by a qualified biologist. The buffered area should be avoided; avoidance measures may include directional boring and/or re-routing. If avoidance is not feasible, a restoration plan should be drafted by a qualified biologist which outlines re-establishment protocol, monitoring methods, and success criteria. The plan should be submitted to the County for approval prior to construction.

Implementation & Monitoring

Project Design: The District's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials Date

Pre-construction: The District's project manager shall ensure that Mitigation Measure BIO1 is being complied with prior to construction. Failure to comply shall result in inspections or issuance of a stop work order until corrective action is taken to comply.

Initials Date

BIO2 To avoid impacts to migratory birds (Protected under MBTA and CDFG Code), all construction-related activities shall be initiated during the non-nesting season from September 1 to January 31 to prevent any impacts to nesting birds. If work cannot be initiated outside the nesting season, the following measures are recommended:

If ground disturbance or removal of vegetation during the nesting season is unavoidable, it is recommended that pre-construction surveys are performed by a qualified biologist no more than 14 days prior to commencement of such activities to determine the presence and location of nesting bird species. If active nests are present, temporary no-work buffers should be placed around active nests to prevent adverse impacts to nesting birds. Appropriate buffer distance shall be determined by a qualified biologist and is dependent on species, surrounding vegetation, and topography. Once active nests become inactive, such as when young fledge the nest or the nest is subject to predation, work may continue in the buffer area and no adverse impact to birds will result.

Implementation & Monitoring

Project Design: The District's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials Date

Pre-construction: The District's project manager shall ensure that Mitigation Measure BIO2 is being complied with during construction. Failure to comply shall result in inspections or issuance of a stop work order until corrective action is taken to comply.

Initials Date

BIO3 To reduce potential construction-related impacts to wetlands adjacent to construction areas, the following measures shall be implemented:

- BMP's should be installed between the project footprint and aquatic feature prior to ground disturbance. Silt wattles or silt fencing should be installed at least 1-foot away from the edge of wetland or stream top of bank (TOB);
- Project activities within 10 feet of aquatic features should be conducted during the non-rainy season (April through November) to the extent practical. If work must be conducted during the rainy season, no work should be conducted during a significant rainfall event (forecast of > 0.5 inches within a 24 hour period) within 10 feet of aquatic features;
- Silt wattle should be placed between the aquatic feature and the boring machine to prevent contamination of the feature with machine fluids (i.e. boring mud, oil);
- Soil temporarily excavated for the water and sewer line trenches will be placed on the side of the trench furthest from any wetlands or streams;
- Impacts to vegetation adjacent to the aquatic features shall be minimized by installing the project components adjacent to paved roadways where previous soil disturbance has occurred and vegetation has been observed to consist of non-native species as a result of repeated disturbance.

Implementation & Monitoring

Project Design: The District's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials Date

Pre-construction: The District's project manager shall ensure that Mitigation Measure BIO3 is being complied with during construction. Failure to comply shall result in inspections or issuance of a stop work order until corrective action is taken to comply.

Initials Date

Construction: The District's project manager will verify that the mitigation measure is implemented during construction through routine inspections during ground disturbing work. Failure to comply shall result in issuance of a stop work order until corrective action is taken.

Initials Date

BIO4 The Biological Assessment identified potentially jurisdictional waters/wetlands. If avoidance of those features is not practical, a formal wetland delineation shall be conducted during the spring (at least two weeks following a significant rainfall event and when the ground has been sufficiently moistened by previous rainfall) within the vicinity of the proposed project components to determine extent of the features. Areas within 50-feet of the proposed project shall be examined to determine actual extent of features and associated buffers. The delineation shall focus on the aquatic features mapped during WRA's assessment; however, as the site assessment was conducted during the dry season and as vegetation was mowed, the entire footprint of development and associated 50-foot buffer should be surveyed in areas where wetlands might be present to capture any potential features which were potentially overlooked. The delineation shall be used to obtain proper permits from USACE and RWQCB for impacts to jurisdictional wetlands. If impacts to features are to occur, mitigation measures will be necessary and will be determined during the permitting process, but shall not be less than replacement of wetlands functions and values at a 1:1 ratio.

Implementation & Monitoring

Project Design: The District's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials Date

Pre-construction: The District's project manager shall ensure that Mitigation Measure BIO4 is being complied with during construction. Failure to comply shall result in inspections or issuance of a stop work order until corrective action is taken to comply.

Initials Date

Construction: The District's project manager will verify that any permit terms are being implemented during construction through routine inspections during ground disturbing work. Failure to comply shall result in issuance of a stop work order until corrective action is taken.

Initials Date

CULTURAL RESOURCES

CR1 The project plans and specifications shall provide that in the event prehistoric-era or historic-era archaeological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. Prehistoric-era archaeologic site indicators could include chipped chert and obsidian tools and tool manufacture waste flakes, grinding implements such as mortars and pestles, and locally darkened soil containing the previously mentioned items as well as fire altered stone and dietary debris such as bone and shellfish fragments. Historic-era archaeologic site indicators could include items of ceramic, glass and metal, and features such as structural ruins, wells and pits containing such artifacts. After cessation of excavation, the contractor shall immediately contact the District. The District shall contact a qualified professional archaeologist immediately after the find. Such archaeologist shall conduct an evaluation of significance of the site, and assess the necessity for mitigation and contact local Native American tribes, as appropriate. The contractor shall not resume construction activities until authorization to proceed is received from the District.

Implementation & Monitoring

Project Design: The District's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials Date

Construction: The District's project manager will verify that the mitigation measure is implemented during construction through routine inspections of during ground disturbing work. Failure to comply shall result in issuance of a stop work order until corrective action is taken.

Initials Date

CR2 If human remains are encountered during grading, excavation or trenching, all construction activity shall cease and the contractor shall immediately contact the District and the Mendocino County Coroner's Office. If the remains are determined by the Coroner's Office to be of Native American origin, the Native American Heritage Commission shall be contacted and the procedures outlined in CEQA §15064.5 (d) and (e) shall be implemented by the District or its designee.

Implementation & Monitoring

Project Design: The District's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials Date

Construction: The District's project manager will ensure that required measures are followed in the event of discovery of human remains.

Initials Date

GEOLOGY AND SOILS

GS1 The project plans and specifications shall provide that in the event paleontological site indicators are unearthed during the course of grading, excavation and/or trenching, all ground disturbing work in the vicinity of the discovery shall cease and all exposed materials shall be left in place. After cessation of excavation, the contractor shall immediately contact the District. The District shall contact a qualified professional geologist or paleontologist immediately after the find. Such consultant shall conduct an evaluation of significance of the site, and assess the necessity for mitigation. The contractor shall not resume construction activities until authorization to proceed is received from the District.

Implementation & Monitoring

Project Design: The District's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials Date

Construction: The District's project manager or inspector(s) shall verify that the mitigation measure is implemented during construction periods.

Initials Date

HAZARDS/HAZARDOUS MATERIALS

HM1 The contractor shall be required to follow the provisions of § 5163 through 5167 of the General Industry Safety Orders (California Code of Regulations, Title 8) to protect the project area from being contaminated by accidental release of any hazardous materials.

In general, the Contractor shall maintain awareness of potential signs of soil and groundwater contamination throughout the project limits and shall notify the District immediately upon discovery of any potential soil or groundwater contamination.

If hazardous materials are encountered during construction or occur as a result of an accidental spill, the contractor shall halt construction immediately, notify the District, and implement remediation in accordance with the project specifications and applicable requirements of the Regional Board. Disposal of all hazardous materials shall be in compliance with current California hazardous waste disposal laws.

Implementation & Monitoring

Project Design: The District's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials Date

Construction: The District's project manager will verify that the mitigation measure is incorporated into project construction, as appropriate.

Initials Date

NOISE

N1 The following measures shall be implemented at the construction site to reduce the effects of construction noise on adjacent residences:

- Noise-generating activities at the construction sites or in areas adjacent to the construction sites associated with the project in any way shall generally be restricted to the hours of 7:00 a.m. to 7:00 p.m. Any work outside of these hours shall require special permission from the District. There should be a compelling reason for permitting construction outside the designated hours.
- The District shall provide notice to all residents within 100 feet of the construction activities at least 48 hours prior to commencing construction. The notice shall include the contact information for the District's noise disturbance coordinator and the anticipated construction schedule.
- All internal combustion engine driven equipment shall be equipped with intake and exhaust mufflers which are in good condition and appropriate for the equipment.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- Staging of construction equipment and all stationary noise-generating construction equipment, such as air compressors and portable power generators, shall be staged as far as practical from existing noise sensitive receptors.
- "Quiet" air compressors and other "quiet" stationary noise sources shall be utilized where technology exists.
- Noise from construction workers' radios shall be controlled to the point where radio noise is not audible at existing residences bordering the project site.

Implementation & Monitoring

Project Design: The District's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials Date

Construction: The District's project manager or inspectors shall verify that the mitigation measure is implemented during construction periods and respond to any noise complaints.

Initials Date

TRAFFIC/TRANSPORTATION

TTI The contractor shall develop and submit an appropriate Traffic Control Plan (TCP) in accordance with the California Manual of Uniform Traffic Control Devices (MUTCD) for review and approval by the District for all project elements that impact traffic circulation. The TCP shall also include notifying adjacent businesses and residents of the construction schedule and when it will impact access. The TCP shall ensure thru traffic and temporary driveway access during periods where active construction is not taking place.

Implementation & Monitoring

Project Design: The District's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials Date

Preconstruction: The District's project manager shall review and approve the Traffic Control Plan prior to construction.

Initials Date

Construction: The District's project manager or inspectors shall verify that the mitigation measure is implemented during construction periods.

Initials Date

TT2 The contractor shall provide advanced notice regarding timing, location and the duration of construction activities to local emergency responders. The contractor shall ensure emergency responders can have access through construction areas in roadways at all times.

Implementation & Monitoring

Project Design: The District's project manager will verify that the mitigation measure is incorporated into the project design and included in the project documents prior to issuing final project approvals.

Initials Date

Construction: The District's project manager shall ensure appropriate notice is given and that emergency access is maintained.

Initials Date