Notice of Completion & Environmental Document Transmittal

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

SCH #

Project Title: Parkwood CMD 19A&B Water System Improvements

Lead Agency: Madera County Public Works | Contact Person: Ahmad Alkhayyat
Mailing Address: 200 W. 4th Street, 3rd Floor | Phone: (559) 675-7811
City: Madera | Zip: 93637 | County: Madera

Project Location: County: Madera | City/Nearest Community: Madera/Parkwood
Cross Streets: Madera Ave and Raymond Thomas Street | Zip Code: 93637
Longitude/Latitude (degrees, minutes and seconds): 36 ° 55 ′ 55.8 ″ N / 120 ° 3 ′ 8.3 ″ W Total Acres: 1.45
Assessor's Parcel No.: 047-364-011 | Section: | Twp.: | Range: | Base:
Within 2 Miles: State Hwy #: 145, 99 | Waterways: Cottonwood Creek
Airports: | Railways: UPrr | Schools: Madera S HS

Document Type:

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

NEPA: ☐ NOI Other: ☐ EA ☐ Draft EIS ☐ FONSI ☐ Joint Document ☐ Final Document ☐ Other:

Governor's Office of Planning & Research
JUL 17 2019
STATE CLEARINGHOUSE

Local Action Type:

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

Development Type:

☐ Residential: Units | Acres
☐ Office: Sq.ft. | Acres | Employees
☐ Commercial: Sq.ft. | Acres | Employees
☐ Industrial: Sq.ft. | Acres | Employees
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type well | MGD 1.44
☐ Transportation: Type
☐ Mining: Mineral
☐ Power: Type | MW
☐ Waste Treatment: Type | MGD
☐ Hazardous Waste: Type
☐ Other:

Project Issues Discussed in Document:

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

Present Land Use/Zoning/General Plan Designation:

Public Open Space (POS)/Medium Density Residential (MDR)

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

The Parkwood CMD (County Maintenance District) 19 A&B Parkwood Water System (Proposed Project) proposes to construct and operate one municipal production well to supplement existing supplies in the northern portion of its service area, within Madera County. The project site consists of one existing and one offline well and its associated features. This project would involve of above grade and below grade infrastructure improvements designed to bring online a new production well to replace an existing, offline well on the same parcel. The final product will be a groundwater well capable of producing approximately 1,000 gallons per minute (gpm) to meet all drinking water quality requirements. The projected schedule is to construct the production well in 2019, with overall project completion in 2020.

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Reviewing Agencies Checklist

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

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

_____ Other: _____
_____ Other: _____

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

Starting Date ~~June 10, 2019~~ July 17, 2019 Ending Date ~~July 10, 2019~~ August 15, 2019

Lead Agency (Complete if applicable):

Consulting Firm: Wood Rodgers, Inc.
Address: 3301 C St Suite 100b
City/State/Zip: Sacramento, CA 95816
Contact: Jeffrey Lodge, P.E.
Phone: (916) 341-7421

Applicant: _____
Address: _____
City/State/Zip: _____
Phone: _____

Signature of Lead Agency Representative: _____ **Date:** 6.5.19

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

Appendix G

PO Box 3044
Sacramento, CA
95812- 3044

State of California
Office of Planning and Research
1400 Tenth Street, Room 222

June 3, 2019

Note: For regular mail use PO Box, for Federal Express delivery use the street address and 95814 as the zip code for the street address.

NOTICE OF INTENT
TO ADOPT A NEGATIVE DECLARATION

Project Title: *Parkwood MD 19 A&B Water System Improvements*
Project Location: *South of Avenue 13 between South Madera Avenue and Raymond Thomas Street adjacent to the City of Madera, Madera County, California*
Lead Agency: *Madera County Public Works*
County: *Madera*

In accordance with the California Environmental Quality Act (CEQA) (Public Resources Code §21000 et seq.), the CEQA Guidelines (Title 14 Code of Regulations Section 15000 et seq.), an Initial Study for the above-named project was prepared that identifies and evaluates the environmental impacts of the project.

Project Description

Based on the data gathered during the exploratory drilling program completed in 2018, Wood Rodgers designed Well 4A to target the aquifers between 460 and 540 feet. The estimated design capacity for a well constructed at this site is 1,000 gpm. The recommended well design for the Production Well 4A Site targets the intermediate Older Alluvium Aquifers. Data from each test well completion suggests that the water produced from the proposed Production Well 4A, as designed, should meet all DDW drinking water quality standards.

Environmental Review and Comment

A Negative Declaration has been deemed appropriate for this project and this letter is intended to serve as the Negative Declaration for this project. This proposed Negative Declaration is being circulated for public review and comment. The Initial Study, the proposed Negative Declaration is available for public review at this address below and are on file at the County of Madera, Public Works 200 W. 4th Street, 3rd Floor, Madera, CA 93637, and will be posted here https://www.maderacounty.com/government/public-works/quick-links/special-districts-bulletin.

We expect the State & public review period will extend from approximately ~~June 10, 2019~~ July 17, 2019 through ~~July 10, 2019.~~ August 15, 2019

The proposed Negative Declaration along with any comments will be considered by the Madera County Public Works in conjunction with consideration of the project for approval. The Negative Declaration will become Final if adopted by the Madera County Public Works Board.

Sincerely,

Signature

Ahmad Alkhayyat
Print Name

Public Works Directa
Title

Enclosures: Initial Study/ND

cc: 1) State Clearinghouse/Office of Planning and Research: NOI and 15 copies of Draft Initial Study. These 15 copies are distributed by the State Clearinghouse to Responsible and Trustee Agencies, along with other reviewing State agencies.

2) Local agencies: City/County
(Note: Madera County files with OPR directly, copies to Counties are for their information, not for the County Clerk to file with OPR)

3) Interested Public: NOI and Draft Initial Study to people who have requested such notice (attach distribution list). In addition to public notification via newspaper, posting or direct mail to owners and occupants of adjacent property.

Appendix H

Environmental Information Form
(To be completed by applicant)

Date Filed July 17, 2019

GENERAL INFORMATION

1. Name and address of developer or project sponsor:
County of Madera
Public Work Department
200 W. 4th Street, 3rd Floor, Madera, CA 93637

2. Address of project: Assessor's Block and Lot Number *APN 047-364-011*

3. Name, address, and telephone number of person(s) to be contacted concerning this project:
Ahmad Alkhayyat, Public Works Director
200 W. 4th Street, 3rd Floor
Madera, CA 93637
(559) 675-7811

4. Indicate number of the permit application for the project to which this form pertains:
DDW Permit No.: 03-11-17P-024

5. List and describe any other related permits and other public approvals required for this project, including those required by city, regional, state and federal agencies:

Entity	***Permit Required***
Madera County	*Encroachment Permit*
Madera County	*Grading Permit*
Madera County	*Erosion Control Permit*
Madera County	*Stormwater Pollution Preventions Plan*
EPA	*National Pollutant Discharge Elimination System Compliance*
San Joaquin Air Pollution Control District	*Emergency Diesel Generator - Authority to Construct* *Emergency Diesel Generator - Permit to Operate*

6. Existing zoning district: *Public Open Space (POS)*

7. Proposed use of (*a portion of the*) site (Project for which this form is filed): drinking water well

Are the following items applicable to the project or its effects? Discuss below all items checked yes (attach additional sheets as necessary).

YES NO

___ _N_ 21. Change in existing features of any bays, tidelands, beaches, lakes or hills, or substantial alteration of ground contours.

___ _N_ 22. Change in scenic views or vistas from existing residential areas or public lands or roads.

___ _N_ 23. Change in pattern, scale or character of general area of project.

___ _N_ 24. Significant amounts of solid waste or litter.

___ _N_ 25. Change in dust, ash, smoke, fumes or odors in vicinity.

___ _N_ 26. Change in ocean, bay, lake, stream or ground water quality or quantity, or alteration of existing drainage patterns.

___ _N_ 27. Substantial change in existing noise or vibration levels in the vicinity.

___ _N_ 28. Site on filled land or on slope of 10 percent or more.

___ _N_ 29. Use of disposal of potentially hazardous materials, such as toxic substances, flammables or explosives.

___ _N_ 30. Substantial change in demand for municipal services (police, fire, water, sewage, etc.).

___ _N_ 31. Substantially increase fossil fuel consumption (electricity, oil, natural gas, etc.).

___ _N_ 32. Relationship to a larger project or series of projects.

ENVIRONMENTAL SETTING

33. Describe the project site as it exists before the project, including information on topography, soil stability, plants and animals, and any cultural, historical or scenic aspects. Describe any existing structures on the site, and the use of the structures. Attach photographs of the site. Snapshots or polaroid photos will be accepted.

South of East Pecan Avenue (Avenue 13) between South Madera Avenue (Road 27) and Raymond Thomas Street adjacent to the City of Madera, Madera County, CA

General Plan Description: Medium Density Residential (MDR)
Zoning: Public Open Space (POS)

The existing well site and facilities are located within Parkwood Park, a fully developed neighborhood park. The existing Madera County Public Works facilities are contained within a fenced area to restrict public access and maintain a high level of public safety. Parkwood Park is surrounded by fully developed medium density residential lots.

Existing structures include: The existing facilities onsite include an abandoned well with the discharge pipe disconnected and pump/motor removed, hydropneumatics tank,

piping, meter, valves, 250,000 gallon water storage tank and a three pump skid mounted booster pump station. All facilities with the exception of the tank are fenced with a 6 foot chain link fence with slats on north, east and west sides to obstruct visibility.

34. Describe the surrounding properties, including information on plants and animals and any cultural, historical or scenic aspects. Indicate the type of land use (residential, commercial, etc.), intensity of land use (one-family, apartment houses, shops, department stores, etc.), and scale of development (height, frontage, set-back, rear yard, etc.). Attach photographs of the vicinity. Snapshots or polaroid photos will be accepted.

The surrounding area is a fully developed single family residential subdivision, and the immediate vicinity is a County Park – Parkwood Park.

Based on the results of a Class I Archival Review for the Proposed Project, no previously recorded cultural or historical sites lie within the project area. And based on the existing level of development within the project area, and it is unlikely that intact cultural resources would be inadvertently discovered during development of the proposed project.

Please see attached CEQA Initial Study/Negative Declaration for more detailed information.

CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this initial evaluation to the best of my ability, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date 6.5.2019

Signature

For _____

Note: Authority cited: Sections 21083 and 21087, Public Resources Code. Reference: Sections 21000-21176, Public Resources Code.

REVSIED INITIAL STUDY/NEGATIVE DECLARATION

FOR PARKWOOD CMD 19A&B WATER SYSTEM IMPROVEMENTS

PREPARED FOR:
MADERA COUNTY PUBLIC WORKS

PREPARED BY:

WOOD RODGERS
BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

JULY 2019

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Figures

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MADERA COUNTY PUBLIC WORKS
REVSIED PROPOSED INITIAL STUDY/NEGATIVE DECLARATION

Project Title:	Parkwood CMD 19A&B Water System Improvements
Lead Agency Name and Address:	Madera County Public Works 200 W. 4th Street, 3rd Floor Madera, CA 93637
Lead Agency Contact:	Ahmad Alkhayyat Public Works Director (559) 675-7811
Project Location:	South of Avenue 13 ½ between Madera Ave. and Raymond Thomas Street adjacent to the City of Madera, Madera County, CA
Project Sponsor's Name and Address:	Madera County Public Works 200 W. 4th Street, 3rd Floor Madera, CA 93637
Assessor's Parcel Number:	047-364-011
General Plan Designation:	Medium Density Residential (MDR)
Zoning:	Public Open Space (POS)

PROJECT DESCRIPTION

The Parkwood CMD (County Maintenance District) 19 A&B Parkwood Water System (Proposed Project) proposes to construct and operate one municipal production well to supplement existing supplies in the northern portion of its service area, within Madera County. The project site consists of one existing and one offline well and its associated features.

This project would involve of above grade and below grade infrastructure improvements designed to bring online a new production well to replace an existing, offline well on the same parcel. The final product will be a groundwater well capable of producing approximately 1,000 gallons per minute (gpm) to meet all drinking water quality requirements. The projected schedule is to construct the production well in 2019, with overall project completion in 2020.

Figure 1 provides a map of the existing conditions including test well locations and proposed new well location.

Existing Conditions

This eastern section of the parcel contains a portion of Parkwood Park, a public park maintained by Madera County with a basketball court, a playground, sidewalks and other park related amenities. The western section of the parcel is a fenced drainage area. Residential areas surround the park on each side. An existing, offline well is located on the eastern area of the parcel. This well is offline due to excessive sand production that is intended to be remedied with this project. Most parts of this existing well will be repurposed for the new production well with the exception of some associated piping, appurtenances and sand separator that will be demolished (See Drawing C-2 of 30% Design Plans). Associated items to be retained from this well include a hydropneumatic tank, an electrical panel, a booster pump station, monitoring wells and a water storage tank.

Groundwater data collection and analysis has been conducted recently in the Subbasin in preparation efforts for the Groundwater Sustainability Plan (GSP) for the Madera Subbasin (Technical Memorandum: Madera Subbasin, 2017). For this study, maps of contours of equal groundwater elevation were prepared from spring 1958 to spring 2016. Spring 2016 groundwater contours indicate that the groundwater elevations in the City of Madera ranged from 10 feet to 90 feet msl. DWR groundwater contours between spring 2011 and spring 2017 indicate the direction of groundwater flow is primarily from south to north beneath the City of Madera (DWR Groundwater Information Center Interactive Map Application).

The MD 19 well field extracts groundwater from the underlying Madera Subbasin (Subbasin) (DWR Basin No. 5-22.06). The Subbasin covers an area of 614 square miles and is located entirely within Madera County. It is bound on the south by the San Joaquin River, on the west by the eastern boundary of the Columbia Canal Service Area, the north by the south boundary of the Chowchilla subbasin, and on the east by the crystalline basement bedrock of the Sierra Nevada foothills. Major streams in the area include the San Joaquin and Fresno Rivers and help promote recharge in the subbasin.

A hydrogeological investigation report was prepared by Wood Rodgers in April 2018. This report was used to design the site-specific exploratory drilling program. Based upon information within the report, Wood Rodgers designed an exploratory drilling and test well construction program to assess quality of the aquifers underlying the site to a depth of 600 feet.

Wood Rodgers contracted with Bradley and Sons Drilling (Bradley) of Del Rey, California, to conduct the exploratory drilling and construction of a multiple-completion test well at the site. Beginning on September 18, 2018, Bradley drilled an 8 ¾-inch borehole to a total depth of 600 feet, using the direct rotary drilling method. The test hole was geophysically logged on September 19, 2018 by Pacific Surveys, LLC of Claremont, California. The response of the geophysical surveys and the drill cutting samples suggested the best permeable aquifers were located between 460 to 540 feet below ground surface (bgs). Wood Rodgers provided Bradley with a nested triple completion test well design to assess the aquifer intervals, from 460 to 470 feet bgs (TW-475), 493 to 503 feet bgs (TW-508), and 530 to 540 feet bgs (TW-545). Each test well completion is identified by the total casing depth. Prior to the installation of the PVC casing, the borehole was reamed to 12 ¼-inch diameter to a depth of 520 feet bgs and a wiper pass was made with the 8 ¾-inch diameter bit to clean the borehole to a depth of 575 feet bgs. Following construction of the nested test well, it was determined that the shallow completion (TW-475) had failed, requiring a replacement. Bradley re-mobilized 10-feet south of the original test well and drilled an 8 ¾-inch diameter borehole to a depth of 485 feet bgs. On October 22, 2018, the replacement TW-475 was successfully constructed.

Above Grade Infrastructure Design

The design includes a 5-foot square concrete well pedestal, sole plate, base plate, discharge head, pump, motor, 360 feet of column pipe, and extension of the 3-inch gravel fill tube, and 2-inch sounding tubes. The discharge head will be connected to a restrained flanged coupling adapter which connects the discharge head to the discharge piping then a 3 ft. 9-inch spool piece which has a pressure switch (or transmitter) and pressure gage and air vacuum/air release valve connections. The spool piece is supported by a pipe support and connects to an 8-inch x 4-inch x 8-inch tee for pump to waste. The pump to waste 8-inch x 4-inch tee consists of the 8-inch flow thru dimension and a 4-inch connection for the pump to waste. The 4-inch pump to waste tee connects to manually operated gate valve, and a 4-inch blind flange. The 8-inch flow-thru end connects to an 8-inch swing check valve, 8-inch dismantling joint and then to a 1 ft. 6-inch pipe spool supported by a pipe support.

The pipe spool connects to a manually operated 8-inch gate valve which is attached to an 8-inch 90-degree elbow and then a 4 ft. – 9-inch pipe that goes below the 6-inch concrete base slab about 2 feet below the 90-degree elbow. The 4 ft. – 9-inch pipe spool connects to a 8-inch 90 degree mechanical joint elbow which starts the pipeline consisting of; 13 feet of pipe, a 90 degree elbow, 36 feet of pipe, a 90 degree elbow, 68 feet of pipe, a 45 degree elbow, 67 feet of pipe, a 45 degree elbow, 5 feet of pipe, a 90 degree elbow, 5 feet of pipe, a 90 degree elbow, a gate valve, 5 feet of pipe (pipe supported), an 8-inch dismantling joint, a flow meter, 3 feet of pipe (pipe supported) and connection to the existing Well 4A hydro pneumatic tank piping inlet butterfly valve.

In addition to the mechanical piping already identified, this project will have a 6-inch thick reinforced concrete slab on grade 20 feet long by 12 feet wide. The concrete slab on grade will have a footing and the area will be fenced with removable posts for well rehabilitation. Electrical conduits will be installed from the new pump/motor location back to the previous well pump and motor location where the original power conduits are located. The new pump and motor will have a Sound Attenuation Hood installed on it to dampen the noise to levels in compliance with the local noise ordinance. The pump will be a vertical turbine deep well pump equipped with a premium efficiency 1800 rpm vertical hollow shaft 150 hp motor. Some limited site grading will occur for the 20-foot long and 12-foot wide area for the concrete slab on grade. Additional site components include low pedestal LED lighting for the facility.

Additional improvements include two connections to the existing City of Madera water distribution system, upsizing of one section of pipe and looping of pipe in the southern end of the service area. One intertie connection will consist of trenching in the existing street at Pecan Avenue and Watt Street, cutting pipe, installing a 8"x8"x12" tee and an 8" valve. The other intertie includes trenching in the existing street at Georgia Avenue and Raymond Thomas Street, cutting of pipe, installing an 8"x8"x8" tee and an 8" valve. The replacement work includes trenching of the existing 6-inch pipeline at Georgia Avenue and Raymond Thomas Street to Raymond Thomas Place, removal of an existing 90 degree fitting, installation of a 6"x6"x8"x8" cross, removal of 300 feet of 6-inch pipe and replacement with 8-inch pipe in Raymond Thomas Street. Installation of a 8"x8"x6" tee to connect to the existing 150 feet of 6-inch pipe in Raymond Thomas Street and to the 250 feet of replacement 8" pipe in Raymond Thomas Place. Looping of pipe in the southern end includes adding 2,200 feet of 8" pipe connecting at Georgia Avenue and Watt Street routing pipe south to the end of lot and then west to Conrad Street, then north to the termination of 8" pipe in Conrad Street. This work will include trenching in Georgia Avenue and Watt Street, installation of a 6"x6"x8" tee to begin the 8" pipeline.

The project will also involve installation of a total of 506 water meters in the Maintenance District 19AB Parkwood service area. The installation of the meters will include locating each service, valving off the service, cutting of the asphalt paving and excavation of the service line, establishing a location for the meter, excavation for the meter and meter box, cutting of the service pipe, disinfection of the piping and meter and installation of the meter and meter box with connection to the service pipe. With installation of the meter and meter box, the contractor will then backfill each excavation and repave in the roadways where necessary. The number and sizes of the meters are as follows:

- ¾-inch water meters to include meters, meter box and lid (495 total)
- 1-inch water meters to include meters, meter box and lid (2 total)
- 1-1/2 inch water meters to include meters, meter box and lid (2 total)
- 2-inch water meter to include meters, meter box and lid (7 total)

Below Grade Infrastructure Design

The design includes a 32-inch diameter mild steel conductor casing grouted in place to a depth of 50 feet below ground surface (bgs). The conductor casing will serve to stabilize the upper formations during borehole drilling, and also to provide the DDW required sanitary seal. Inside the conductor casing, a 28-inch diameter borehole extends to a depth of 570 feet bgs. The well structure includes a 16-inch outside diameter mild steel well casing to a depth of 300 feet and transitions into a stainless-steel well casing and louvered well screen assembly. The design consists of a 10-foot sump, 40 feet of well screen, and 510 feet (excluding the stick-up above ground surface) of blank well casing, extending to a depth of 550 feet bgs.

To accommodate for the potential of future inelastic land subsidence in the area, it was determined to add additional protection of the well structure. A fully extended compression section is included from 380 to 400 feet to accommodate for any potential subsidence. The screen section has been designed to be "Ful-Flo" louvered well screen, with a slot size of 0.055 inches to provide the acceptable inlet velocities, suitable open area, and retention of the selected gravel envelope material. A 3-inch diameter steel gravel fill pipe extends to a depth of 327 feet bgs and a 2-inch diameter stainless steel sounding pipe will extend to and enter the well casing at a depth of 378 feet bgs. The annular space will be filled with 8x16 graded gravel

from the bottom of the borehole to 312 feet bgs. A two-foot fine sand transition seal will be placed on top of the gravel envelope from 312 feet to 310 feet bgs, with a sand/cement grout annular seal from 310 feet bgs to ground surface.

FINDINGS

An Initial Study (IS) has been prepared to describe and assess the significance of potential environmental impacts of the Proposed Project, and to propose mitigation for any significant impacts. Based on the results of the IS, it has been determined that the Proposed Project would not have significant impacts on the environment. This conclusion is supported by the following findings:

1. The Proposed Project would have no impacts on: agriculture, biological resources, cultural resources, mineral resources, geology and soils, land use planning, mineral resources, population and housing, public services, recreation, transportation and traffic, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, and utilities and service systems.
2. The Proposed Project would have less-than-significant impacts on: aesthetic resources, air quality, and noise.
3. The Proposed Project would have no significant impacts.

The Applicant has included a number of measures in the Proposed Project to avoid or minimize potential impacts.

Questions or comments regarding this IS/MND may be addressed to:

Ahmad Alkhayyat, Public Works Director
Madera County Public Works
200 W. 4th Street, 3rd Floor
Madera, CA 93637
(559) 675-7811

INITIAL STUDY

1. PROJECT DESCRIPTION

1.1 INTRODUCTION AND REGULATORY GUIDANCE

This Initial Study/ Negative Declaration (IS/MND) has been prepared by Madera County Public Works (MCPW) to evaluate the potential environmental effects of the Parkwood CMD 19 A&B Parkwood Water System Improvements (Proposed Project), located in Madera County. This document has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations [CCR] Section 15000 et seq.).

An initial study is prepared by a lead agency to determine if a project may have a significant effect on the environment (State CEQA Guidelines Section 15063[a]), and thus to determine the appropriate environmental document to be prepared. In accordance with State CEQA Guidelines Section 15070, a "public agency shall prepare a proposed negative declaration or mitigated negative declaration when: (a) The initial study shows that there is no substantial evidence…that the project may have a significant impact on the environment, or (b) The initial study identifies potentially significant effects but revisions to the project plans or proposal are agreed to by the applicant and such revisions would reduce potentially significant effects to a less-than-significant level." In those circumstances, the lead agency should prepare a written statement describing its reasons for concluding that the proposed project would not have a significant effect on the environment and, therefore, does not require the preparation of an Environmental Impact Report (EIR). This IS/ND has been prepared to fulfill these requirements as well as the content requirements of State CEQA Guidelines Section 15071.

1.2 PROJECT BACKGROUND

The County of Madera (County) Maintenance District No. 19A and 19B Parkwood (MD 19) relies solely on groundwater to meet its potable water supply demands. The MD 19 Water System has a total of 495 existing connections and is supplied by one well with a reported production of 400 gallons per minute (gpm). The MD 19 water system also includes one booster pump station, one emergency intertie with the City of Madera, and one 250,000-gallon storage tank.

The potable water supply demands at MD 19 are met through one active well (Well 3), with the remaining wells (Wells 1, 2 and 4) inactive and disconnected from the distribution system (Figure 1.). In 2014, declining water levels due to consecutive years of drought resulted in a failure of Well 3, requiring the emergency construction of an intertie to the City of Madera water system to provide potable water supply during well rehabilitation. Rehabilitation successfully returned Well 3 to its full pumping capacity; however, concentrations of manganese in the MD 19 Water System are currently near or exceed the State of California Water Resources Control Board– Division of Drinking Water (DDW) secondary (aesthetic) water quality standard of 50 micrograms per liter (µg/L).

1.3 PROJECT PURPOSE

The project goals include the development of a new municipal supply well that meets State and Federal Drinking Water Regulations, protects the groundwater resource, provides 1,000 gallons per minute (gpm) capacity, and provides a well structure with a service life of approximately 75 years. In conjunction with our hydrogeologic investigation, Wood Rodgers reviewed construction

data from the City of Madera (City) Well 33 to better understand design principles previously utilized. Production Well 4A has been designed to take into account similar design criteria as the existing City wells, such as well casing diameter, screen type, sanitary seal depth, and selected aquifer zones.

1.4 PROJECT LOCATION AND SETTING

The Proposed Project is located within Madera County, near the city limits of Madera. The proposed production well site is located within Parkwood Park, south of East Pecan Avenue (Avenue 13) between South Madera Avenue (Road 27) and Raymond Thomas Street adjacent to the City of Madera, Madera County, CA. The well site is located on APN 047-364-011, owned by Madera County. Topography within the MD 19 is generally flat, with the ground surface sloping from northeast to southwest with approximate elevations of 270 feet above mean sea level (msl) to 260 feet msl.

The MD 19 Water System has a total of 495 existing connections and is supplied by one well with a reported production of 400 gallons per minute (gpm). The MD 19 water system also includes one booster pump station, one emergency intertie with the City of Madera, and one 250,000-gallon storage tank. The Proposed Project can be easily accessed during construction and operation, and is in close proximity to required infrastructure, such as existing storm drains, sanitary sewers, a water source to assist the drilling process, and power.

Please refer to Proposed Project Site Photographs contained in Appendix 1.

1.5 PROJECT DESCRIPTION

Based on the data gathered during the exploratory drilling program completed in 2018, Wood Rodgers designed Well 4A to target the aquifers between 460 and feet. The estimated design capacity for a well constructed at this site is 1,000 gpm. The recommended well design for the Production Well 4A Site targets the intermediate Older Alluvium Aquifers. Data from each test well completion suggests that the water produced from the proposed Production Well 4A, as designed, should meet all DDW drinking water quality standards.

Figure 1 provides a map of the existing conditions including test well locations and proposed new well location.

Exploratory Drilling and Test Wells

Wood Rodgers contracted with Bradley and Sons Drilling (Bradley) of Del Rey, California, to conduct the exploratory drilling and construction of a multiple-completion test well at the site. Beginning on September 18, 2018, Bradley drilled an 8 ¾-inch borehole to a total depth of 600 feet, using the direct rotary drilling method. The test hole was geophysically logged on September 19, 2018 by Pacific Surveys, LLC of Claremont, California. The response of the geophysical surveys and the drill cutting samples suggested the best permeable aquifers were located between 460 to 540 feet below ground surface (bgs).

Production Well Design

Please see Appendix 2 for the 60 percent Progress Design Plans.

Above Grade Infrastructure Design
The design includes a 5-foot square concrete well pedestal, sole plate, base plate, discharge

head, pump, motor, 360 feet of column pipe, and extension of the 3-inch gravel fill tube, and 2-inch sounding tubes. The discharge head will be connected to a restrained flanged coupling adapter which connects the discharge head to the discharge piping then a 3 ft. 9-inch spool piece which has a pressure switch (or transmitter) and pressure gage and air vacuum/air release valve connections. The spool piece is supported by a pipe support and connects to an 8-inch x 4-inch x 8-inch tee for pump to waste. The pump to waste 8-inch x 4-inch tee consists of the 8-inch flow thru dimension and a 4-inch connection for the pump to waste. The 4-inch pump to waste tee connects to manually operated gate valve, and a 4-inch blind flange. The 8-inch flow-thru end connects to an 8-inch swing check valve, 8-inch dismantling joint and then to a 1 ft. 6-inch pipe spool supported by a pipe support.

The pipe spool connects to a manually operated 8-inch gate valve which is attached to an 8-inch 90-degree elbow and then a 4 ft. – 9-inch pipe that goes below the 6-inch concrete base slab about 2 feet below the 90-degree elbow. The 4 ft. – 9-inch pipe spool connects to a 8-inch 90 degree mechanical joint elbow which starts the pipeline consisting of; 13 feet of pipe, a 90 degree elbow, 36 feet of pipe, a 90 degree elbow, 68 feet of pipe, a 45 degree elbow, 67 feet of pipe, a 45 degree elbow, 5 feet of pipe, a 90 degree elbow, 5 feet of pipe, a 90 degree elbow, a gate valve, 5 feet of pipe (pipe supported), an 8-inch dismantling joint, a flow meter, 3 feet of pipe (pipe supported) and connection to the existing Well 4A hydro pneumatic tank piping inlet butterfly valve.

In addition to the mechanical piping already identified, this project will have a 6-inch thick reinforced concrete slab on grade 20 feet long by 12 feet wide. The concrete slab on grade will have a footing and the area will be fenced with removable posts for well rehabilitation. Electrical conduits will be installed from the new pump/motor location back to the previous well pump and motor location where the original power conduits are located. The new pump and motor will have a Sound Attenuation Hood installed on it to dampen the noise to levels in compliance with the local noise ordinance. The pump will be a vertical turbine deep well pump equipped with a premium efficiency 1800 rpm vertical hollow shaft 150 hp motor. Some limited site grading will occur for the 20-foot long and 12-foot wide area for the concrete slab on grade. Additional site components include low pedestal LED lighting for the facility.

Additional improvements include two connections to the existing City of Madera water distribution system, upsizing of one section of pipe and looping of pipe in the southern end of the service area. One intertie connection will consist of trenching in the existing street at Pecan Avenue and Watt Street, cutting pipe, installing a 8”x8”x12” tee and an 8” valve. The other intertie includes trenching in the existing street at Georgia Avenue and Raymond Thomas Street, cutting of pipe, installing an 8”x8”x8” tee and an 8” valve. The replacement work includes trenching of the existing 6-inch pipeline at Georgia Avenue and Raymond Thomas Street to Raymond Thomas Place, removal of an existing 90 degree fitting, installation of a 6”x6”x8”x8” cross, removal of 300 feet of 6-inch pipe and replacement with 8-inch pipe in Raymond Thomas Street. Installation of a 8”x8”x6” tee to connect to the existing 150 feet of 6-inch pipe in Raymond Thomas Street and to the 250 feet of replacement 8” pipe in Raymond Thomas Place. Looping of pipe in the southern end includes adding 2,200 feet of 8” pipe connecting at Georgia Avenue and Watt Street routing pipe south to the end of lot and then west to Conrad Street, then north to the termination of 8” pipe in Conrad Street. This work will include trenching in Georgia Avenue and Watt Street, installation of a 6”x6”x8” tee to begin the 8” pipeline.

The project will also involve installation of a total of 506 water meters in the Maintenance District 19AB Parkwood service area. The installation of the meters will include locating each service, valving off the service, cutting of the asphalt paving and excavation of the service line, establishing

a location for the meter, excavation for the meter and meter box, cutting of the service pipe, disinfection of the piping and meter and installation of the meter and meter box with connection to the service pipe. With installation of the meter and meter box, the contractor will then backfill each excavation and repave in the roadways where necessary. The number and sizes of the meters are as follows:

- ¾-inch water meters to include meters, meter box and lid (495 total)
- 1-inch water meters to include meters, meter box and lid (2 total)
- 1-1/2 inch water meters to include meters, meter box and lid (2 total)
- 2-inch water meter to include meters, meter box and lid (7 total)

Below Grade Infrastructure Design

The design includes a 32-inch diameter mild steel conductor casing grouted in place to a depth of 50 feet below ground surface (bgs). The conductor casing will serve to stabilize the upper formations during borehole drilling, and also to provide the DDW required sanitary seal. Inside the conductor casing, a 28-inch diameter borehole extends to a depth of 570 feet bgs. The well structure includes a 16-inch outside diameter mild steel well casing to a depth of 300 feet and transitions into a stainless-steel well casing and louvered well screen assembly. The design consists of a 10-foot sump, 40 feet of well screen, and 510 feet (excluding the stick-up above ground surface) of blank well casing, extending to a depth of 550 feet bgs.

To accommodate for the potential of future inelastic land subsidence in the area, it was determined to add additional protection of the well structure. A fully extended compression section is included from 380 to 400 feet to accommodate for any potential subsidence. The screen section has been designed to be “Ful-Flo” louvered well screen, with a slot size of 0.055 inches to provide the acceptable inlet velocities, suitable open area, and retention of the selected gravel envelope material. A 3-inch diameter steel gravel fill pipe extends to a depth of 327 feet bgs and a 2-inch diameter stainless steel sounding pipe will extend to and enter the well casing at a depth of 378 feet bgs. The annular space will be filled with 8x16 graded gravel from the bottom of the borehole to 312 feet bgs. A two-foot fine sand transition seal will be placed on top of the gravel envelope from 312 feet to 310 feet bgs, with a sand/cement grout annular seal from 310 feet bgs to ground surface.

Figure 1. Existing Conditions and Proposed Well Location

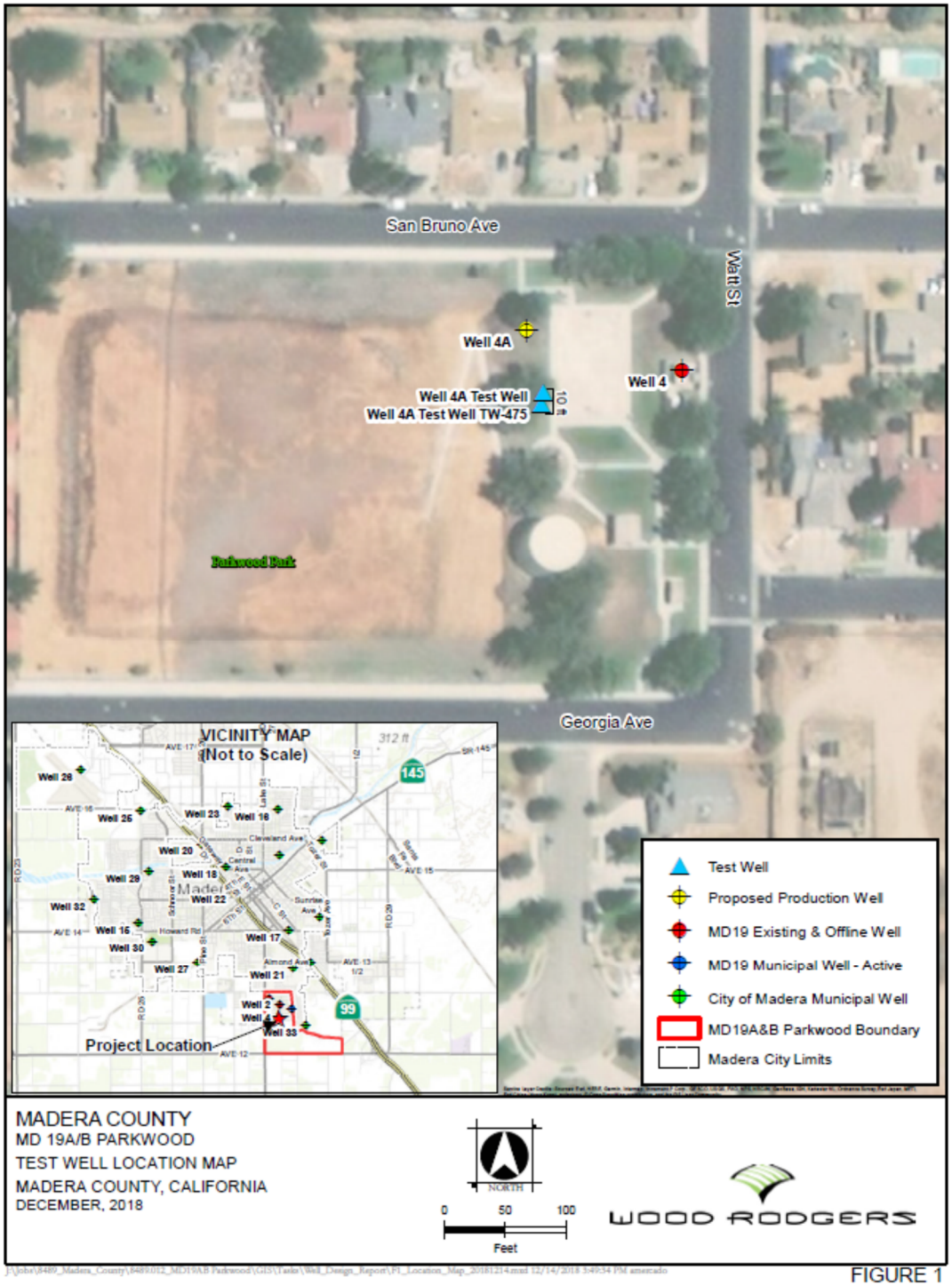

FIGURE 1

1.6 MEASURES INCLUDED IN THE PROPOSED PROJECT TO MINIMIZE IMPACTS

The Parkwood CMD (County Maintenance District) 19&B Water System Improvements site is located in an area that has existing facilities and will be constructed near the existing onsite pumping station within a county park.

Aesthetics

- There is potential that two trees would be removed to facilitate construction of the proposed project (Appendix 2, Sheet C-3). These trees will be replaced in the vicinity of the trees that will be removed with tree specimens of the same species and a minimum of one-half the existing tree's caliper. Madera County Parks Department will determine where the replacement trees would be planted. Due to the location of this well within a park, measures will be taken to mitigate disturbance to park activities. The existing adjacent basketball court will be protected during construction of the well. Most of the construction activities will only occur during daylight hours to minimize the potential of contributing to light pollution. A small portion of the well construction will require 24-hour activities. During this portion of the construction, mitigative measure will be taken to limit both light pollution and noise from construction related activities.

Biological Resources

- Based on current 60 percent Progress Design Plans, two trees would be removed to facilitate construction of the proposed project (Appendix 2, Sheet C-3). If tree removal will coincide with the Migratory Bird Nesting Season, the required survey protocol will be implemented in compliance with the Migratory Bird Treaty Act to avoid all impact to nesting migratory birds.

Air Quality

Because the construction of the Proposed Project has the potential to create fugitive dust, Madera County Public Works will require the construction contractor to implement the following measures:

- Water all exposed surface two times daily, or as required to eliminate fugitive dust.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Keep the street clean and free of loose soil. Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads as least once per day. Use of dry power sweeping is prohibited.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrance to the site.

Cultural Resources

- If previously unidentified cultural resources are encountered during earth-moving activities, construction activities in their vicinity will be halted immediately and the appropriate authorities notified. Authorities should include the County Coroner if suspected human remains are discovered and a qualified archaeologist if prehistoric or historic-period artifacts are found.

Energy

- Although the well itself will have limited energy consumption, an emergency generator for the facility will be provided. This generator will be diesel powered and located at the northeast extent of the project area immediately adjacent to existing facilities (Figure 2).

Hydrology and Water Quality

- To minimize the introduction of sediment to the storm water system during construction, Madera County Public Works will implement standard erosion management measures, including the following Madera County's storm water best management practices (BMPs):
- The use of straw waddles and/or silt fences onsite to prevent the flow of sediment off the site.
- The use of sediment traps or gravel bags at drainage inlets to prevent any sediment from entering the storm water system.
- Use of the existing stormwater detention pond for construction wastewater. The Madera County Public Works will comply with the conditions of the State Water Resources Control Board, National Pollutant Discharge Elimination System, and General Construction Permit.

Geology and Soils

- Permanent erosion control measures and BMPs will be implemented during and after construction.
- The Madera County Public Works will comply with the conditions of the State Water Resources Control Board, National Pollutant Discharge Elimination System, and General Construction Permit. Given the extent of proposed disturbance is less than 1 acre, the project will not require preparation of a Storm Water Pollution Prevention Plan (SWPPP) for the project site.
- Geotechnical information will be collected prior to the construction of the proposed pump pedestal and pad. The recommendations from the geotechnical investigation will be incorporated into the design to rectify any soil characteristics adverse to the stability of the facilities.

Noise

Because of the proximity of the well site several sensitive noise receptors (park, single family residential), and because the well drilling portion of construction could operate twenty-four hours a day for multiple days over a 4–week construction period, Madera County Public Works will implement the following measures to minimize noise effects:

- During the well drilling and construction portion of the project, equipment will be required to be rated for residential area use. Night time activities will be limited to only time sensitive and critical tasks that require 24-hour per day operations.
- A key design component to eliminate operational noise at the site includes use of the existing submersible pump and motor for the well surrounded by a concrete pedestal and pad.
- During the construction of the well, Madera County Public Works will work with the Madera County General Services Division to ensure that the construction schedule takes into consideration previously scheduled park events.
- The emergency generator will be equipped with standard noise attention equipment.

Recreation:

- Although the site is located within a public park, the well site is fully fenced not allowing public access. Construction activities will be fully contained in the fenced area of the parcel and will not impact activities at the park; however, strict safety measures will be adhered to during construction at this site and Madera County Public Works will work closely with the events calendar for Parkwood Park to minimize impacts to the public's park experience.

Transportation:
Madera County Public Works will prepare a transportation management plan to maintain the safe operation of all vehicle modes along San Bruno Avenue, Watt Street and Georgia Avenue during the period of construction of the well. This plan will contain the following provisions:

- Avoid blocking traffic on all roads and intersections
- Allow for continuous pedestrian traffic along Watt Street, San Bruno and Georgia Avenue.

2. LEAD, RESPONSIBLE AND TRUSTEE AGENCIES

Madera County Public Works is the lead agency under the California Environmental Quality Act (CEQA) with primary authority for project approval.

3. CONTACT PERSON

Ahmad Alkhayyat, Public Works Director
(559) 675-7811

4. PROJECT LOCATION

South of Avenue 13 1/2 between Madera Avenue and Raymond Thomas Street adjacent to the City of Madera, Madera County, CA

General Plan Description:	Medium Density Residential (MDR)
Zoning:	Public Open Space (POS)

5. SURROUNDING LAND USES AND SETTING

The existing well site and facilities are located within Parkwood Park, a fully developed neighborhood park. The existing Madera County Public Works facilities are contained within a fenced area to restrict public access and maintain a high level of public safety.
Parkwood Park is surrounded by fully developed medium density residential lots.

6. PROJECT SCHEDULE

The project is scheduled to be constructed in 2019, with overall project completion in 2020.

7. OTHER PUBLIC AGENCY APPROVALS REQUIRED

The following responsible and trustee agencies may have jurisdiction over some or all of the elements of the proposed project:

Entity	Permit Required
Madera County	Encroachment Permit
Madera County	Grading Permit
Madera County	Erosion Control Permit
Madera County	Stormwater Pollution Preventions Plan
EPA	National Pollutant Discharge Elimination System Compliance
San Joaquin Air Pollution Control District	Emergency Diesel Generator - Authority to Construct Emergency Diesel Generator - Permit to Operate

8. PUBLIC INVOLVEMENT

This Initial Study is available for a public review period beginning on May 23, 2019 and ending on June 23, 2019. The CEQ document is available for review at the address below, and at https://www.maderacounty.com/government/public-works/quick-links/special-districts-bulletin.

Written comments may be submitted by 3:00 p.m. on June 20, 2019 to:

Madera County, Public Works Department
Municipal Services Division
200 West 4th Street, 3rd Floor
Madera, California 93637

Comments may also be provided at a public hearing at which the project will be considered for approval. This hearing is scheduled for 10:00 a.m. on July 9, 2019 at the MCPW headquarters at 200 West 4th Street, 3rd Floor, Madera, California 93637.

9. NATIVE AMERICAN CONSULTATION

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1?
Yes, please see Appendix 4.

If yes, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?
Yes, please see Appendix 4.

10. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project. Please see the checklist beginning on page 17 for additional information.

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

11. DETERMINATION:

☒	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.

Leslie N. Burnside

July 15, 2019

Leslie Burnside, Associate
Wood Rodgers, Inc.

Date

Ahmad Alkhayyat
Public Works Director

Date

12. CEQA Environmental Checklist

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

A. AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	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 non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a 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 Madera MD 19 A/B Parkwood Well site is located within a public park, adjacent to a residential area. The project area is zoned Public Open Space (POS). There is an existing steel fence that separates the well site from the adjacent property on all sides. This fence would remain and would be extended to enclose the emergency diesel generator. A second smaller (588 SF) fenced area would be erected on the west side of the basketball court to house the proposed well and appurtenances.

Impact Assessment

a). No Impact The Proposed Project site is not located in an area with special scenic values. The proposed well would be constructed to be visually consistent with the existing well site located on the site.

b). Less Than Significant Project construction and operation at the Proposed Project site would not damage scenic resources, as there are none on or near the site. The proposed project will require the removal two trees. These trees will be replaced with trees of the same species, a

minimum of ½ the caliper of the existing trees, and in the vicinity of the tree to be removed.

c). No Impact The Proposed Project would not substantially degrade the visual quality of the site. An existing, offline well is located at the site within an existing fenced area and this project is serving as a replacement well. Although the replacement well will not be located in the same location as the previous well, the proposed well facilities will be housed similar to the existing well site and in close proximity.

d.) No Impact The proposed project includes low pedestal LED lighting for the facility that is the same as the existing lighting.

B. AGRICULTURE AND 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 Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Environmental Setting

The site is located within an already-developed residential area and does not contain lands currently in agricultural production.

Impact Assessment

a). No Impact The site would not convert agricultural land to non- agricultural uses.

b). No Impact The site is not zoned for agricultural use or under a Williamson Act contract.

c). No Impact There is no forest land on the proposed well site.

d). No Impact There is no forest land on the proposed well site.

e). No Impact No conversion of agricultural land to non-agricultural uses would occur at the site nor would project activities have any effects on other agricultural lands.

C. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	☒
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	☒

Environmental Setting

Air Quality Elements are one of the major elements which may be included within a General Plan Document for a city or county. Within the San Joaquin Valley Air Basin (Valley), Assembly Bill 170 mandates that all cities (57) and counties (8) either adopt an air quality element or amend other elements (land use, circulation, housing, conservation and open space) of its general plan in order to improve overall air quality for its jurisdiction.

The EPA recently announced that it had finalized approval of the SJVAPCD's request for redesignation to attainment of the federal PM10 standard. No official exceedances of the PM10 standard had been recorded anywhere in the San Joaquin Valley Air Basin (SJVAB) since 2003.

The SJVAB counties exceed the federal annual PM2.5 standard. The SJVAB does not exceed the federal 24 hour PM2.5 standard. The SJVAPCD PM2.5 Attainment Plan predicted attainment of this standard by 2015.

As part of its CEQA consultation procedures, Madera County lead agencies refer projects to

the SJVAPCD for review and comment on air quality impacts. Staff will continue to provide CEQA documents and supporting technical reports to the SJVAPCD for review. The County will continue to utilize the SJVAPCD's Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI) as a basis for air quality analysis requirements and for determining the significance of air quality impacts of development projects subject to CEQA.

the District recommends that the Lead Agencies apply the adopted significance thresholds when evaluating project specific impacts on air quality within the San Joaquin Valley. If the Lead Agency determines the proposed project would exceed any of the significance thresholds, then an environmental document should be prepared. However, it is recognized that the final determination of whether a project would have a significant effect on air quality is ultimately within the purview of the Lead Agency pursuant to CEQA Guidelines (CCR §15064(c)).

The District identifies thresholds that separate a project's short-term emissions from its long-term emissions. The short-term emissions are mainly related to the construction phase of a project and are recognized to be short in duration. The long-term emissions are mainly related to the activities that will occur indefinitely as a result of project operations. In addition, CEQA states that another condition that could establish a project as having a significant effect on the environment is effects that are considered "cumulatively considerable."

According to this guide, air quality impacts are considered less-than-significant if they are less than maximum tons per year of criteria and toxic pollutant emissions in the below table:

Air Quality Thresholds of Significance – Criteria Pollutants

Pollutant/Precursor	Construction Emissions	Operational Emissions	
		Permitted Equipment and Activities	Non-Permitted Equipment and Activities
	Emissions (tpy)	*Emissions (tpy)*	*Emissions (tpy)*
CO	100	100	100
NOx	10	10	10
ROG	10	10	10
SOx	27	27	27
PM_{10}	15	15	15
$PM_{2.5}$	15	15	15

The District has determined that use of District Rule 2201 (New Source Review - NSR) Offset thresholds as the District thresholds of significance for criteria pollutants under CCR §15064.7 is an appropriate and effective means of promoting consistency in significance determinations within the environmental review process and is applicable to both stationary and non-stationary emissions sources.

The District's attainment plans demonstrate that project specific emissions below the District's

offset thresholds will have a less than significant impact on air quality. Thus, the District concludes that use of District NSR Offset thresholds as the District thresholds of significance for criteria pollutants under CCR §15064.7 is an appropriate and effective means of promoting consistency in significance determinations within the environmental review process and are applicable to both stationary and non-stationary emissions sources.

The District's permitting process typically ensures that emissions of criteria pollutants from permitted equipment and activities at stationary sources are reduced or mitigated to below the District's thresholds of significance. District implementation of New Source Review (NSR) generally ensures that there is no net increase in emissions above specified thresholds from new and modified Stationary Sources for all nonattainment pollutants and their precursors. Permitted sources emitting more than the NSR Offset Thresholds for any criteria pollutant must, in general, offset all emission increases in excess of the thresholds. However, under certain circumstances, the District may be precluded by state law or other District rule requirements from requiring a stationary source to offset emissions increases.

As stated previously in Section 7 Other Public Agency Approvals Required, the proposed emergency diesel generator will require Authority to Construct and a Permit to Operate from the San Joaquin Air Pollution Control District. Therefore, the District's permitting process will ensures that emissions of criteria pollutants from this permitted equipment and activity at a stationary source would be reduced or mitigated to below the District's thresholds of significance.

Impact Assessment

a). No Impact. NO_X emissions during construction of the Proposed Project would generate less than the threshold of 85 pounds/day established by the SMAQMD, so the Proposed Project would not conflict or obstruct implementation of any air quality management plan. Further, as described under *Project Description*, the Proposed Project includes measures to minimize dust pollution during construction.

b). No Impact See the response to a) above.

c). No Impact Residents in the community to the west and east of the well site and at the public park site may be considered sensitive receptors, though exposure would be limited to the time they may spend outside in the vicinity of the well site during construction. Emissions will be temporary and limited to the roughly 4 weeks during which the well construction would occur, though most emissions would occur during roughly 2 weeks of well drilling.

The well drilling and construction would be approximately 16 months in duration. Because the emissions from the Proposed Project would only occur during the construction period, which is limited in time, this impact is considered less than significant.

d). No Impact The Proposed Project would not create any objectionable odors, either during the construction or operational phases of the project.

D. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or NOAA Fisheries?	☐	☐	☐	☒
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Environmental Setting

On behalf of the applicant, in March of 2019, Wood Rodgers, Inc. submitted a request to the California Natural Diversity Database (CNDD) to determine the potential for sensitive species to occur at and in the vicinity of the site (Appendix 3).

Given the existing developed condition of the Parkwood Park and the well site, Wood Rodgers has determined that it is marginal wildlife and native vegetation habitat. A large portion of the project site is hard surface surround by landscaped species. The overstory (trees and shrubs) may provide potential nesting bird habitat. Species expected to be found in this area include American crows (Corvus brachyrhynchos), acorn woodpecker (Melanerpes formicivorus), house sparrows (Passer domesticus), and California scrub-jay (Aphelocoma californica). Expected mammals include the introduced eastern fox squirrel (Sciurus niger).

The results of CNDD query indicated that 1 reptile (California tiger salamander), 1 mammal (hoary bat), 1 plant (Madera leptosiphon) and 1 insect (molestan blister beetle) have potential to occur in the vicinity of the proposed project.

No special status plants or wildlife species, or sensitive plant communities have been observed within the project area of the proposed Parkwood 19A&B Well site.

No special-status wildlife species or raptors were found at the project site. If project construction is scheduled to occur during the nesting bird season (generally January through August), nesting bird surveys will be required in accordance with the Migratory Bird Treaty Act.

Impact Assessment

a). No Impact No special-status species were identified on or near the project site, and none are likely to occur there in the near future. Therefore, the Proposed Project would not create a significant impact on any special-status species.

b). No Impact No riparian or other sensitive natural communities were identified on either project site.

c). No Impact.. The proposed Well 19 A/B site is within a developed area, and does not contain any wetlands or waters of the United States.

d). No Impact No migration corridors for native or resident migratory fish or wildlife species were identified on the project site, as it is located in urbanized area.

e). No Impact No protected biological resources were identified on the project site.

f). No Impact The project site is not located within an adopted Habitat Conservation Plan or Natural Community Conservation Plan.

E. CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to in §15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☐	☒

Environmental Setting

No cultural resources have been identified in the project site. April 26, 2019 an archival review was completed for the project area by Great Basin Consulting Group (GBCG) (Appendix 4). The Southern San Joaquin Valley Information Center (SSJVIC), California State University, Bakersfield under Permit #281 provided a record search for previous archaeological reports within the project area. The record search covered a ½ mile radius surrounding the project area parcel.

Eighteen previous inventories were conducted within the record search extent. The project parcel

and direct APE have not been inventoried. No resources are located within the project area. Of the eighteen inventories within the project vicinity, only four identified cultural resources. Two cultural resources have been recorded within the one-half mile record search boundary. Madera Canal Irrigation District (MID) Lateral 6.2 (P-20-002308/CA-MAD-002649H) bisects section 31 and extends throughout the project vicinity. The nearest lateral lie between 0.2 miles south and 0.5 miles west of the Direct APE. The Borden Chinese Cemetery is located 1.2 miles southeast of the existing well head. No constructed features are shown within Section 31, Township 11 South, Range 18 East on the 1852 General Land Office Survey Plat (GLO Plat). No properties are listed on the National Register of Historic Places, Office of Historic Preservation Historic Property Directory, or the OHP Archaeological Determinations of Eligibility, or OHP Historic Properties Directory occur in the project area.

The project area consists of an active and abandoned well field. It lies within a developed area and has been subjected to extensive surface and subsurface disturbance. No previously recorded sites lie within the well head area and it is unlikely that additional intact cultural resources. The proposed project will have no effect on known cultural resources.

If additional prehistoric or historic resources are subsequently discovered during construction, the California Department of Water Resources and California SHPO should be notified and activities in the area should cease until those resources can be evaluated. Cultural resources could consist of but are not limited to stone, bone, wood, or shell artifacts, or features including hearths, structural remains, or historic dumpsites. If historic properties are inadvertently discovered, reasonable efforts to avoid, minimize, or mitigate adverse effects to the property will be taken and the State Historic Preservation Officer (SHPO) and Indian tribes with concerns about the property, and the Advisory Council on Historic Preservation (Council) will be notified within 48 hours in compliance with 36 CFR 800.13 (b) (3).

Impact Assessment

a). *No Impact* No historic resources were identified on the project site.

b). *No Impact* The site has been disturbed by past development activities and the records search identified no archaeological resources. This project is considered to have no significant impact because the probability of finding buried archaeological artifacts is low and because MCPW has incorporated a measure in the Proposed Project that will ensure the protection of any unidentified buried archaeological remains, if any are found during construction.

c). *No Impact* No paleontological resources were identified at the Proposed Project site during test well construction and activity at the site is not likely to be extensive enough to expose paleontological resources.

d). *No Impact* The site has been disturbed by past development activities. This impact is considered less than significant because the probability of finding buried human remains is low and because MCPW has incorporated a measure in the Proposed Project that will safeguard the protection of any unidentified human remains, if any are found during construction.

F. ENERGY

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	☒
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

Environmental Setting

The Sustainable Energy Roadmap (SER) is an 18-month effort that launched in January 2015, sponsored by California's Strategic Growth Council. SER brings together municipal governments, regional planning agencies, community stakeholders, and technical experts to support San Joaquin Valley communities as they pursue goals related to smart growth, transportation, land use, climate, and energy.

Through participating in SER, San Joaquin Valley cities and counties can benchmark their energy and sustainable development policies and programs, identify best practices, and pursue goals that make economic sense for their communities. The SER approach is a compelling shared services model that provides vetted, easy-to-access information, actionable resources, and tailored assistance to benefit municipalities, their residents, and local businesses.

Impact Assessment

a). No Impact The proposed project will not require a new or increased source of energy.

b). No Impact The proposed project has been designed and will be constructed in compliance with the goals of the SER.

G. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
ii) Strong seismic ground shaking?	☐	☐	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) 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) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

Environmental Setting

The San Joaquin Valley (Valley) consists of geologic layers of marine sediments overlain by continental-sourced sediments (alluvium) deposited during erosion of the surrounding mountain ranges and flooding events. The alluvial deposits shed from the surrounding mountain ranges thicken towards the axis of the Valley and can reach up to 32,000 feet in thickness (DWR, 2004). The Valley extends to the Sacramento-San Joaquin Delta to the north, the Sierra Nevada Mountains to the east, the Coast Range Mountains to the west, and the Tehachapi and San Emigdio Mountains to the south.

Impact Assessment

a). *No Impact* According to the State Division of Mines and Geology (DMG), there are no active or potentially active faults of major historic significance within Madera County; as a result, the county does not lie within any Alquist-Priolo Special Studies Zone for surface faulting or fault creep. The well building will not be occupied on a regular basis. Further, the pump stations, related equipment, and buildings will be constructed in accordance with the standards contained in the Uniform Building Code. Therefore, the risk associated with seismic activity is very low. The surrounding topography would not lend the site susceptibility to landslides.

b). No Impact The production well will be housed outside and surrounded by a concrete pedestal and pad. The well construction plans will include BMPs for construction to minimize off-site migration of soil and other potential contaminants. See *Section 1.6 Measures Included in The Proposed Project To Minimize Impacts* for more information. Site topography is relatively level,

covered with grasses, and confined such that substantial soil erosion or loss of topsoil would not occur. Disturbed areas and construction materials will be covered during construction to minimize potential for offsite pollution.

The Contractors will be required to adhere to the BMP provisions, and because the site is essentially flat, the potential for erosion is considered less than significant.

c). No Impact The slope of the construction area is flat and at minimal risk of a landslide. The mountainous area of Madera County is underlain by rock and therefore not subject to liquefaction. The site soils are sufficiently stable and will not become unstable to the extent that the project would be adversely affected by on or off-site landslide, lateral spreading, subsidence, liquefaction, or hydro-collapse.

d). No Impact Geotechnical information will collected prior to the construction of the proposed pump station building. The recommendations from the geotechnical investigation will be incorporated into the design to rectify any soil characteristics adverse to the stability of the building.

e). No Impact The Proposed Project would not generate the need for septic systems or alternative wastewater disposal systems, as any wastewater from the site will be disposed of in the sanitary sewer system, access to which is available at the site.

f). No Impact There are no known unique paleontological resources, sites or unique geologic features with in the proposed project area.

H. GREENHOUSE GAS EMISSIONS

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
Caltrans, a State agency that consistently operates/implement projects within the State has used the best available information based to the extent possible on scientific and factual information, to describe, calculate, or estimate the amount of greenhouse gas emissions that may occur related to similar projects. To quote Caltrans, "It is Caltrans' determination that in the absence of statewide-adopted thresholds or GHG emissions limits, it is too speculative to make a significance determination regarding an individual project's direct and indirect impacts with respect to global climate change". All State and local agencies remain committed to implementing measures to reduce the potential effects of individual projects. Please see Section 1.6.				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒	☐	☐

Environmental Setting

Water-related project greenhouse gas emissions (GHG) are mainly caused by energy use required to pump, transport, heat, cool and treat water and wastewater (City 2011a). The greenhouse gas effect is a natural process by which some of the radiant heat from the sun is captured in the lower atmosphere of the earth, thus maintaining the temperature and making the earth habitable. The gases that help capture the heat are called greenhouse gases (GHGs). GHGs can occur naturally in the atmosphere or result from human activity. Some naturally occurring GHGs include water vapor, carbon dioxide, methane, nitrous oxide and ozone.

To assist Lead Agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project specific greenhouse gas emissions (GHG) on global climate change, the San Joaquin Valley Air Pollution Control District (District) has adopted the guidance: Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA and the policy: District Policy – Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency. The guidance and policy rely on the use of performance-based standards, otherwise known as Best Performance Standards (BPS) to assess significance of project specific greenhouse gas emissions on global climate change during the environmental review process, as required by CEQA. Use of BPS is a method of streamlining the CEQA process of determining significance and is not a required emission reduction measure. Projects implementing BPS would be determined to have a less than cumulatively significant impact. Otherwise, demonstration of a 29 percent reduction in GHG emissions, from business-as-usual, is required to determine that a project would have a less than cumulatively significant impact. The guidance does not limit a lead agency's authority in establishing its own process and guidance for determining significance of project related impacts on global climate change.

Construction of the Proposed Project would generate a small amount of GHGs primarily in the form of CO. Potential GHG emissions would be associated with the drilling rig, earth moving equipment, other construction equipment, and the travel of workers to and from the site. No thresholds associated with construction of a project are currently available.

Impact Assessment

a). *Less Than Significant* Because of the short duration and small scale of the construction associated with the Proposed Project the GHG emissions would be very small and are considered less than significant. The GHG emissions associated with ongoing operation of the Proposed Project are estimated to be well under the threshold used in this analysis, so these emissions are also considered less than significant.

b). *Less Than Significant* The proposed project has been designed for construction and operation to follow the GHG reduction measures and actions identified in the Citrus Heights GHGRP. In addition, the project is of such a small scale, that its emissions would not likely

conflict with any such plan.

I. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☒

Environmental Setting

The project site is located in Madera County. According to Wood Rodgers, 2018a, there were no active or historical groundwater contamination sites identified with the MD 19 A&B service boundary.

There are no public or private airports located near the site. The site is in an urbanized area, and is not within or adjacent to areas subject to wildfires.

Impact Assessment

a). Less Than Significant The Proposed Project would not initially involve the routine transport, storage, and use of hazardous chemicals. There may be a future need for chemicals to be transported to the site contingent on future regulations regarding drinking water quality. However, chemicals are used routinely at nine existing well sites. Madera County manages the

use of chemicals in accordance with the California Environmental Reporting System (CERS) Consolidated Emergency Response/Contingency plans where applicable.

b). Less Than Significant See the response to *a)* above.
c). Less Than Significant As described above under a) above, hazardous chemicals will not be used routinely at the Well 19 A/B site. However, these chemicals are used routinely by MCPW at each of its active well sites, and MCPW has developed safe handling procedures (described above) that will safeguard the safety of children at the Parkwood Elementary school. Therefore, this impact is considered less than significant.

d). No Impact The site is not located near a hazardous materials site.

e). No Impact The site is not located within an airport land use plan area, nor within 2 miles of a public airport or public use airport. Madera Municipal Airport is located approximately 8 miles north and west of the Project Site.

f). No Impact The Proposed Project does not include any features that would impair implementation of or physically interfere with an emergency response plan or emergency evacuation plan, as MCPW will prepare a transportation management plan that safeguard continuous emergency access through the residential area.

g). No Impact The site is not located near wildlands nor is in an area subject to wildland fires.

J. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☒
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☒
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) result in substantial erosion or siltation on- or off-site;	☐	☐	☐	☒
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	☒
(iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Environmental Setting

CMD 19 is in the San Joaquin Valley, which is the southern portion of the Central Valley of California. The San Joaquin Valley is a large asymmetrical trough measuring 200 miles long and up to 70 miles wide, bordered on the east by the Sierra Nevada. The San Joaquin Valley consists of two hydrologic areas: the south referred to as the Tulare Lake Hydrologic Region and the north as the San Joaquin Valley Hydrologic Region, where MD 19 is located. The San Joaquin Hydrologic Region covers an area of approximately 15,200 square miles and includes counties of Calaveras, Tuolumne, Mariposa, Madera, San Joaquin, and Stanislaus.

Surface Water Hydrology.

Major rivers located near MD 19 include the San Joaquin River approximately eight miles south, and the Tuolumne River approximately three miles to the north. There are no major streams or rivers located within MD 19.

Groundwater Hydrology and Quality.

Groundwater data collection and analysis has been conducted recently in the Subbasin in preparation efforts for the Groundwater Sustainability Plan (GSP) for the Madera Subbasin (Technical Memorandum: Madera Subbasin, 2017). For this study, maps of contours of equal groundwater elevation were prepared from spring 1958 to spring 2016. Spring 2016 groundwater contours indicate that the groundwater elevations in the City of Madera ranged from 10 feet to 90 feet msl. DWR groundwater contours between spring 2011 and spring 2017 indicate the direction of groundwater flow is primarily from south to north beneath the City of Madera (DWR Groundwater Information Center Interactive Map Application).

The MD 19 well field extracts groundwater from the underlying Madera Subbasin (Subbasin) (DWR Basin No. 5-22.06). The Subbasin covers an area of 614 square miles and is located entirely within Madera County. It is bound on the south by the San Joaquin River, on the west by the eastern boundary of the Columbia Canal Service Area, the north by the south boundary of the Chowchilla subbasin, and on the east by the crystalline basement bedrock of the Sierra Nevada foothills. Major streams in the area include the San Joaquin and Fresno Rivers and help promote recharge in the subbasin.

Exploratory Drilling/Test Well

A hydrogeological investigation report was submitted by Wood Rodgers in April 2018. This

report was used to design the site-specific exploratory drilling program. Based upon information within the report, Wood Rodgers designed an exploratory drilling and test well construction program to assess quality of the aquifers underlying the site to a depth of 600 feet.

Wood Rodgers contracted with Bradley and Sons Drilling (Bradley) of Del Rey, California, to conduct the exploratory drilling and construction of a multiple-completion test well at the site. Beginning on September 18, 2018, Bradley drilled an 8 ¾-inch borehole to a total depth of 600 feet, using the direct rotary drilling method. The test hole was geophysically logged on September 19, 2018 by Pacific Surveys, LLC of Claremont, California. The response of the geophysical surveys and the drill cutting samples suggested the best permeable aquifers were located between 460 to 540 feet below ground surface (bgs). Wood Rodgers provided Bradley with a nested triple completion test well design to assess the aquifer intervals, from 460 to 470 feet bgs (TW-475), 493 to 503 feet bgs (TW-508), and 530 to 540 feet bgs (TW-545). Each test well completion is identified by the total casing depth. Prior to the installation of the PVC casing, the borehole was reamed to 12 ¼-inch diameter to a depth of 520 feet bgs and a wiper pass was made with the 8 ¾-inch diameter bit to clean the borehole to a depth of 575 feet bgs. Following construction of the nested test well, it was determined that the shallow completion (TW-475) had failed, requiring a replacement. Bradley re-mobilized 10-feet south of the original test well and drilled an 8 ¾-inch diameter borehole to a depth of 485 feet bgs. On October 22, 2018, the replacement TW-475 was successfully constructed.

Regulatory Setting. MCPW holds a water system permit administered by the DDW that allows them to operate their water supply and distribution system. Current permits include: Project No.: 2010004, DDW Permit No.: 03-11-17P-024.

On November 18, 2014, MCPW was granted Order WQ 2014-0194-DWQ, NPDES No. CAG140001 (NPDES Permit) covering Waste Discharge Requirements for Dewatering and Other Low Threat Discharges to Surface Waters by the California Regional Water Quality Control Board, Central Valley Region (California Regional Water Quality Control Board, Central Valley Region 2014). The NPDES permit grants MCPW the right to discharge water into the Madera County storm water system pursuant to Section 402 of the federal Clean Water Act (NPDES permit) and Article 4, Chapter 4, Division 7 of the California Water Code (Waste Discharge Requirements). The following MCPW activities are covered under the permit:

- Well development water,
- Construction dewatering,
- Pump/well testing,
- Pipeline/tank pressure testing,
- Pipeline/tank flushing or dewatering,
- Condensate discharges,
- Water supply system discharges, and
- Miscellaneous dewatering/low threat discharges.

Under the terms of the NPDES permit, "…potable water discharges as qualified under this permit have been determined to pose no significant threat to water quality…"

Impact Assessment

a). No Impact MCPW will operate the well under the terms of the Statewide NPDES permit, which includes the determination that discharges within the terms of the permit "have been determined to pose no significant threat to water quality". In addition, MCPW has included

measures in the Proposed Project to minimize erosion and the introduction of sediment into the storm water system. Therefore, this impact is considered less than significant.

b). No Impact The project goals for the CMD 19 site include the development of a new municipal supply well that meets State and Federal Drinking Water Regulations, protects the groundwater resource, provides 1,000 gallons per minute (gpm) capacity, and provides a well structure with a service life of approximately 75 years. The Parkwood well is intended to replace an offline, existing well that was recently removed from service due to water quality concerns. The Proposed Project would not deplete groundwater supplies over currently approved levels of groundwater extraction. The project is intended to improve water quality and water system reliability. The well site will not increase impervious surface, and therefore would not adversely impact groundwater recharge via percolation of precipitation.

c(i). No Impact The proposed project would not result in substantial erosion of siltation on or off-site.

c(ii). No Impact The proposed project would not require surface runoff and therefore would not result in flooding on or off-site.

c(iii). No Impact During construction, the proposed project would discharge construction runoff to the existing stormwater detention pond. Construction planning does not anticipate a significant amount of wastewater that would exceed the freeboard capacity of the stormwater detention pond.

c(iv). No Impact..The Project area is not subject to flooding.

d). No Impact.. The site is not located near a body of water that would be subject to seiche or tsunami. The site is located in flat terrain, not subject to mudflows.

e). No Impact MCPW has confirmed that the proposed project is in compliance with the Water Quality Control Plan and the Madera County Sustainable Groundwater Management Plan.

K. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Environmental Setting

The site is on a parcel with Madera County with a land use designation of Medium Density Residential (MDR) and a zoning of Public Open Space (POS). Land uses surrounding the site include single-family residential and a County Park.

No change in general plan designation or zoning is required at the site to allow the Proposed Project to be constructed and operated, and no use permit is required.

Impact Analysis

a). No Impact The Proposed Project does not contain any features that would lead to physically dividing a community.

b). No Impact The County has indicated that, the proposed project can be constructed and operated without the need for a general plan amendment, a zoning change, or a use permit.

L. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Environmental Setting

Mineralization has occurred in the metamorphic rocks of both the foothills zone (Macdonald, 1941, p. 267-270) and the Minaret mining district, in the Ritter Range region at the north end of the San Joaquin Basin (Erwin, 1934, p. 10-11, 61-78), but there has been virtually no mineral production of significance. The Minaret district, in particular, has been extensively prospected, and ore bodies have been found containing iron, lead, zinc, copper, and silver, as well as minor amounts of molybdenum, tungsten, and bismuth. On the upper slope of Iron Mountain, in this district, is a body of magnetite that has long attracted the attention of miners and that possibly would be profitable to exploit if it were more accessible to roads and markets USGS 2009).

Impact Analysis

a). No Impact The site is not located in an area designated as possessing mineral resources. The site is in an urban area, so no mineral development of these areas is anticipated.

b). No Impact The site is not located in an area designated as possessing mineral resources. The site is on a developed parcel in an urban area, so no mineral development of these areas is anticipated.

M. NOISE

Would the project result in:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne 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

The site is located adjacent to a residential area and it is located in a public park.

The 1995 Madera County General Plan Background Report (Chapter 8: Noise) contains noise policies to protect county residents from the harmful and annoying effects of exposure to excessive noise. However, the focus of noise policies is on the impact of roadways, highways, airports and industrial facilities on noise levels. The Proposed Project is not anticipated to be a significant, long term noise generator.

The Madera County Code of Ordinances Title 9, Appendix V, Chapter 9.58.020 G. states, "Construction activities are limited to the hours of seven a.m. and seven p.p. Monday through Friday and nine a.m. and five p.m. on Saturdays. Construction activities will be prohibited on Sundays.

Because well drilling will occur on continuous basis 24-hours per day, MCPW has included noise reduction measures in the Proposed Project to mitigate the potential for impact to a less than significant level, including the requirement of residential rated equipment during the well drilling phase and limiting the activities that will be allowed at night to keep exposure to noise during construction to 60 dBA (residential). Noise levels generated during drilling activities will be verified during construction and additional mitigating measures will be applied, as necessary to maintain a less than significant impact.

After construction, operational noise is expected to be no more than the current ambient noise levels. The use of a submersible pump and motor surrounded by a concrete pedestal and pad will also aid in operational noise reduction.

Impact Assessment

a). Less Than Significant The site is adjacent to sensitive receptors including residences and a public park. However, the majority of the noise contributed during construction would be

due to well construction activities that would be of a limited duration (approximately 4 weeks), and because MCPW has included measures in the Proposed Project to reduce noise levels, this impact is considered less than significant.

Noise levels during the operations phase of the Proposed Project will be very similar to existing levels, as the pump, motor, and all equipment will be contained in a fenced enclosure and will be equipped with noise attenuation that will contain the noise.

b). Less Than Significant The site will not expose persons to excessive ground borne vibration or noise levels. As stated above, construction activities will be of limited duration and will be minimized by measures included in the project description. During operations, the pumps and other equipment operating at each site will not create excessive ground borne vibration or noise levels because they will be submerged (pump and motor) or will be housed in a concrete building or be equipped with noise attenuation.

c). No Impact The site is not located within an airport land use plan or within two miles of a public airport or public use airport and would not expose people residing or working in the project area to excessive noise levels.

N. POPULATION AND HOUSING

Would the project:

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

Environmental Setting

The site is located within urbanized portions of Madera County.

Impact Assessment

a). No Impact The Proposed Project will improve the reliability of water provided within portions of the MCPW system, and is intended to increase the sustainability of the existing system.

b). No Impact No housing or people would be displaced by the construction of the well.

O. PUBLIC SERVICES

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:				
	Potentially Significant Impact	**Less Than Significant with Mitigation**	**Less Than Significant Impact**	**No Impact**
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Environmental Setting

The proposed well site is in an urbanized area and is currently served by fire protection, police protection, schools, parks and other public facilities. The proposed replacement well will have no impact on the current level of these services.

Impact Assessment

a). No Impact Sufficient capacity remains in the water, power, and sanitary sewer systems to provide for the small incremental requirements associated with the construction and operation of Well MD 19A/B Parkwood.

P. RECREATION

	Potentially Significant Impact	**Less Than Significant with Mitigation**	**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

The Well MD 19A/B Parkwood site is within a public park, Parkwood park. An existing, offline well is located in a different section of this park. The MCPW well site is completely enclosed by a

chain-link fence and closed to the public. The proposed project will not impact the recent (2018) general landscaping improvements, basketball court rehabilitation, or the landscaping around the existing water tank.

Impact Assessment

a). No Impact The Proposed Project does not include any features that would result in an increase in usage of any park or recreational facility, and would thus not lead to any physical deterioration of such facilities.

b). No Impact The Proposed Project is located in a park, but does not include any park or recreational facilities, nor any features that would result in an increase in usage of any park or recreational facility, and would thus require the construction or expansion of any such facilities.

Q. TRANSPORTATION

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? NOTE: While public agencies may immediately apply Section 15064.3 of the updated Guidelines, statewide application is not required until July 1, 2020. In addition, uniform statewide guidance for Caltrans projects is still under development. The PDT may determine the appropriate metric to use to analyze traffic impacts pursuant to section 15064.3(b). Projects for which an NOP will be issued any time after December 28th, 2018 should consider including an analysis of VMT/induced demand if the project has the potential to increase VMT (see page 20 of OPR's updated SB 743 Technical Advisory), particularly if the project will be approved after July 2020.	☐	☐	☐	☒
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d) Result in inadequate emergency access?	☐	☐	☐	☒

Environmental Setting

The Proposed Project site is located on Watt Street. Access to the nearest freeway is to Highway 99. There are no bicycle lanes on any adjacent streets, nor any public bus service.

Impact Assessment

a). No Impact During the construction phase of the Proposed Project the delivery of equipment

and materials, and the travel of workers would generate a small number of vehicle trips. During the operations phase, the site would be visited periodically by workers to check the operations for maintenance activities and chemical delivery. However, this would amount to less than one trip per day. Thus, the Proposed Project would not affect the operations of any roadways.

Construction at the site will not cause any significant disruption to traffic on Watt Street, Georgia Avenue or San Bruno Avenue, as the roads have wide shoulders, and there is room on the site for all of the equipment and materials to be stored to drill the well and construct the facilities. MCPW will prepare a transportation management plan, and will require the contractor selected to construct the Proposed Project to implement the plan. The transportation management plan will provide for the safe operation of autos and bicycles along Panorama Drive, and for the use of the sidewalk by pedestrians.

Because this impact will be temporary, and because MCPW will prepare a transportation management plan, this impact is considered less than significant.

b). No Impact There will be very limited if any disruption to traffic along Watt Street, and there will be no long-term change to the level of service. No congestion management program has been prepared that applies to the site.

c). No Impact The proposed project would not require the creation or restructuring of any roadway, and thus would not create a dangerous intersection. Neither would the Proposed Project create any incompatible uses on surrounding roadways.

d). No Impact The site would have no effect on emergency access.

R. TRIBAL CULTURAL RESOURCES

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

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

Environmental Setting

The Proposed Project site consists of an active and abandoned well field. It lies within a developed

area and has been subjected to extensive surface and subsurface disturbance for development of a County maintained public park.

a). No Impact No previously recorded sites lie within the well head area and it is unlikely that additional intact cultural resources. The proposed project will have no effect on known cultural resources.

b). No Impact The California Native American Heritage Commission (NAHC) was contacted on March 5, 2019 and a Tribal Consultation list was requested Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2. A Sacred Lands File search was also submitted as part of that request. Upon receipt of the tribal list, Consultation letters were prepared for respective Tribes describing the proposed project and inviting them to begin Informal Section 106 and NEPA Consultation. Those letters and responses will included in the project file if an when resposnes are received by the Lead Agency. No sacred lands were identified by the NAHC. Please see Appendix 4.

S. UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☒
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☒

Environmental Setting

The site is currently served by water (MCPW), sanitary sewers, storm drains, and solid waste collection and disposal. The proposed project is a replacement well that is currently offline due to excessive sand production.

Impact Assessment

a). *No Impact* The proposed project will not 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). No Impact Water is available at the site, and is only needed during the construction phase of the Proposed Project. Once the well is operating, it will provide water to the MCPW water supply system and will need no outside source of water.
Construction of The Proposed Project will generate waste water that will be discharged into the existing stormwater detention pond that is located onsite. Discharged waste water will be in compliance with the terms of R5-2018-0085 and possibly 2003-003-DWQ as applicable (CRWQCB 2013).

c). No Impact MCPW has confirmed that there is adequate freeboard in the existing detention pond to accommodate discharge of construction waste water.

d). No Impact The only solid waste generated by the Proposed Project would be the cuttings generated by the well drilling during construction and construction waste generated during the pump station construction phase. MCPW will allow the well-drilling contractor to stockpile cuttings on site during the drilling phase, but ultimately, they will be required to be hauled off site and disposed of in accordance with all applicable regulations before the drilling phase is completed. Waste generated during the pump station construction phase will also be hauled off site and disposed of in accordance with all applicable regulations. The amount of waste generated would be very small, and can easily be accommodated by existing waste disposal systems.

e). No Impact As described above, the only solid waste generated by the Proposed Project would occur during construction, principally as cuttings produced by the well drilling. These cuttings will be disposed of by the contractor in accordance with all applicable regulations.

T. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less Than Significant with Mitigation	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	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
runoff, post-fire slope instability, or drainage changes?				

Environmental Setting

The Proposed Project site consists of an active and abandoned well field. It lies within a developed area and has been subjected to extensive surface and subsurface disturbance for development of a County maintained public park.

Impact Assessment

a). *No Impact* The Proposed Project will not impair an adopted emergency response plan or emergency evacuation plan.

b). No Impact Given that the Proposed Project will be located in an area that has been developed as a County maintained public Park, the location itself serves as a determent to wildfire due to maintenance of an irrigated and maintained vegetation environment.

c). No Impact The Proposed Project will not require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

d). No Impact The Proposed Project will not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

U. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below 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?	☐	☐	☐	☒
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)?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☒

a). No Impact The Proposed Project site does not provide potential habitat for any special-status species, nor were any special-status species identified during field reconnaissance. No cultural resources were identified during the CHRIS records search nor during previous construction activities. No significant impacts requiring mitigation were identified during the analysis of the impacts of the Proposed Project. Therefore, the Proposed Project would not have the potential to significantly degrade the quality of the environment.

b). No Impact The Proposed Project is not expected to contribute to any cumulatively significant impacts for several reasons. First, because the Proposed Project is a replacement well project, no new impacts or allocation of new resources are anticipated. Second, all potential impacts would be temporary and only occurring during the construction phase, and are therefore limited in duration. Third, MCPW has incorporated a number of measures (Section 1.6) into the Proposed Project to avoid or minimize any impacts.

c). No Impact All potential impacts would be temporary and would occur only during the construction phase, and are therefore limited in duration. Based on prior project experiences, the pollutant emissions generated during the construction of the Proposed Project would not exceed the thresholds established by the San Joaquin Valley Air Pollution Control District, so these impacts could not be considered substantial. The noise generated during construction will be temporary, and will be minimized through the usage of residential rated equipment and this are not considered substantial.

13. ALTERNATIVES

Given that the Proposed Project is a replacement well, the project site is owned by MCPW, and the test well data verified the potential success of a new well at this site, no other sites have been evaluated.

14. REFERENCES

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Wood Rodgers, Inc. 2018b. Madera County, Maintenance District 19 A & B Parkwood – Hydrogeological Investigation Report. April 26, 2018

Wood Rodgers, Inc. 2018c. Madera County, Maintenance District 19 A & B Parkwood – Draft Well Design Report, December 17, 2018

15. LIST OF PREPARERS

Lead Agency – Madera County Public Works

Ahmad Alkhayyat.....Public Works Director

Ramon Mendez……Engineer III

Engineering – Wood Rodgers, Inc.

Lawrence Ernst.....Project Hydrogeologist

Jeffrey Lodge…….....Project Engineer

IS/ND Preparation

Leslie Burnside, Wood Rodgers, Inc.....CEQA Project Manager

Michael Drews, Great Basin Consulting Group.....Cultural Resources

APPENDIX 1

Project Site Photographs

Madera County - Parkwood MD-19 - Well 4 Site
Site Visit Photo Report - 04/04/2018

1: Parkwood Park Overview

2: Parkwood Park Overview

3: Proposed Well 4A location

4: Proposed Well 4A location

5: Stormwater retention basin west of proposed Well 4A location

6: Stormwater retention basin west of proposed Well 4A location

Madera County - Parkwood MD-19 - Well 4 Site
Site Visit Photo Report - 04/04/2018

7: Stormwater retention basin west of proposed Well 4A location

8: Storm drain drop inlet on south side of San Bruno Ave, north of the retention basin

9: Storm drain drop inlet on south side of San Bruno Ave, north of the retention basin

10: Storm drain drop inlet on north side of San Bruno Ave, north of the retention basin

11: Storm drain drop inlet on north side of San Bruno Ave, north of the retention basin

12: Sewer manhole located on San Bruno Ave

Madera County - Parkwood MD-19 - Well 4 Site
Site Visit Photo Report - 04/04/2018

13: Sewer manhole located on San Bruno Ave

14: Sewer manholes located on San Bruno Ave

15: Looking south from San Bruno Ave at the proposed Well 4A location

16: Well 4, east of the proposed Well 4A location

17: Proposed Well 4A location, looking south from San Bruno Ave

18: Nearest hydrant to site, located at the NW corner of San Bruno Ave and Watt St

Madera County - Parkwood MD-19 - Well 4 Site
Site Visit Photo Report - 04/04/2018

19: Sewer manhole located in the intersection of Watt St and San Bruno Ave

20: Sewer manhole located in the intersection of Watt St and San Bruno Ave

21: Sewer manholes located in the intersection of Watt St and San Bruno Ave

22: USA markings on the west side of Watt Ave, east of Well 4

23: WWTP located SE from the intersection of Watt St and Georgia Ave

24: WWTP located SE from the intersection of Watt St and Georgia Ave

Madera County - Parkwood MD-19 - Well 4A Site
Site Visit Photo Report - 04/04/2018

25: WWTP located SE from the intersection of Watt St and Georgia Ave

26: South side of stormwater retention basin, looking north from Georgia Ave

27: South side of 250,000 gallon storage tank

28: Storm drain drop inlet on the north side of Georgia Ave, south of the Retention Basin

29: Storm drain drop inlet on the south side of Georgia Ave, south of the Retention Basin

30: Storm drain drop inlet on the north side of Georgia Ave, south of the Retention Basin

Madera County - Parkwood MD-19 - Well 4A Site
Site Visit Photo Report - 04/04/2018

31: Storm drain drop inlet on the south side of Georgia Ave, south of the Retention Basin

32: South side of the stormwater retention Basin, looking NE from Georgia Ave

33: Drop inlet at the NW corner of the storage tank

34: Storage tank drop inlet discharge pipe

35: Possible on-site water source

APPENDIX 2

60% Progress Design Plan Set

60% DESIGN

IMPROVEMENT PLANS FOR

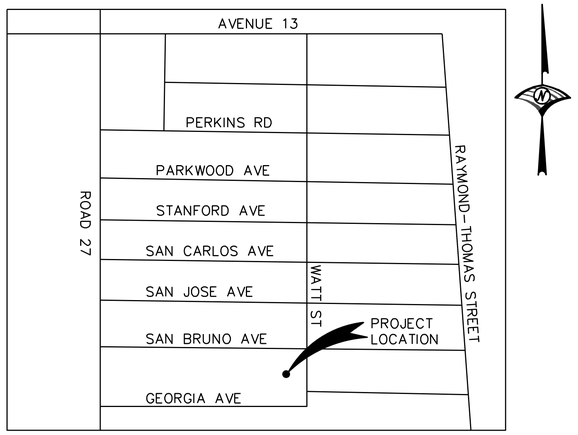
MADERA COUNTY MAINTAINENCE DISTRICT 19A&B
PARKWOOD - WATER SYSTEM IMPROVEMENTS

MAY 2019

SHEET INDEX

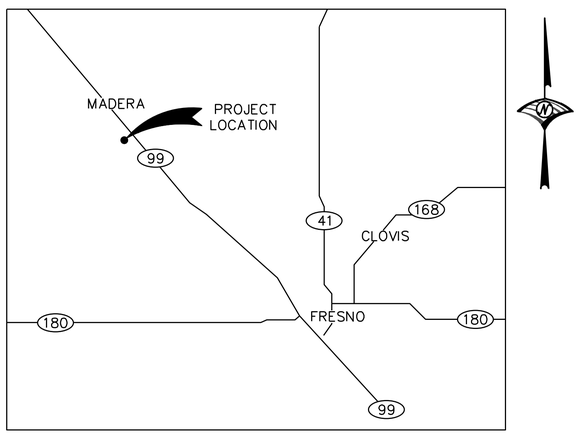
LOCATION MAP

NOT TO SCALE



VICINITY MAP

NOT TO SCALE



AREA MAP

NOT TO SCALE

COUNTY APPROVALS:

PUBLIC WORKS DIRECTOR _____ DATE _____

MUNICIPAL SERVICES DIVISION _____ DATE _____

DESIGN & CONSTRUCTION SECTION _____ DATE _____

DIGALERT
DIAL TOLL FREE
1-800-642-2444
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF NORTHERN CALIFORNIA

CONTRACTOR SHALL VERIFY ACTUAL DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. CALL "UNDERGROUND SERVICE ALERT" (U.S.A.), (TOLL FREE 800-642-2444) PRIOR TO TRENCHING, GRADING, EXCAVATION, DRILLING, PIPE PUSHING, PLANTING TREES, DIGGING POST HOLES FOR FENCES, ETC., (U.S.A.) WILL SUPPLY INFORMATION OR LOCATE AND MARK ANY UNDERGROUND FACILITIES.

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO CONTRACTORS" CONTAINED IN THE SPECIAL PROVISIONS.

WOOD RODGERS

REGISTERED PROFESSIONAL ENGINEER
JEFFREY ALLEN LODGE
No. C55828
Exp. 12-31-18
CIVIL
STATE OF CALIFORNIA

DATE: _____

NO.	DESCRIPTION	ENGR INT.	BY	DATE
				COUNTY APPROVED

DATE: MAY 2019
SCALE: H: N/A V: N/A
DRAWN BY: D. DASTOUM
DESIGNED BY: E. GOSSE
CHECKED BY: J. LODGE

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C St, Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

IMPROVEMENT PLANS FOR
MD19A&B - PARKWOOD
WATER SYSTEM IMPROVEMENTS
COVER SHEET
MADERA COUNTY CALIFORNIA

PROJECT NO. 8489.015

DRAWING G-1

SHT 1 OF 10

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GENERAL NOTES

1. THE CONTRACTOR SHALL COORDINATE WORK WITH THE APPROPRIATE UTILITY SERVICE PROVIDER WHEN WORKING NEAR POWER LINES, POWER POLES, GAS MAINS, WATER TRANSMISSION FACILITIES OR ANY OTHER UTILITY STRUCTURES, BOXES, ETC.

2. UTILITY INFORMATION WAS COMPILED FROM DATA PROVIDED BY THE UTILITY OWNERS AND LOCATIONS ARE APPROXIMATE. THE ACTUAL LOCATIONS AND ELEVATIONS OF THE EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR. ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES SHALL BE PROTECTED FROM CONSTRUCTION EQUIPMENT AND OPERATIONS, UNLESS OTHERWISE NOTED. REFER TO IRRIGATION SYSTEM DRAWINGS INCLUDED WITH THE BID DOCUMENTS FOR APPROXIMATE LOCATIONS OF EXISTING IRRIGATION PIPING.

3. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES INVOLVED WITH THIS PROJECT. IN ADDITION, THE CONTRACTOR IS TO REQUEST TO HAVE ALL UNDERGROUND UTILITIES WHICH MAY POSSIBLY CONFLICT WITH THE ABOVEGROUND OR BELOWGROUND IMPROVEMENTS IDENTIFIED IN THE FIELD. THE CONTRACTOR IS REQUIRED TO NOTIFY UNDERGROUND SERVICE ALERT (U.S.A) 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION BY CALLING (800) 227-2600.

4. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL UTILITIES DURING CONTRACT ACTIVITIES.

5. CAL-OSHA SAFETY REQUIREMENTS SHALL BE IN EFFECT DURING ALL CONSTRUCTION ACTIVITIES.

6. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR FURNISHING AND MAINTAINING ALL WARNING SIGNS, DEVICES, AND FEATURES NECESSARY TO PROTECT THE HEALTH AND SAFETY OF THE GENERAL PUBLIC AND WORKERS AND TO PROVIDE FOR THE PROPER AND SAFE ROUTING OF VEHICULAR AND PEDESTRIAN TRAFFIC DURING THE PERFORMANCE OF THE WORK.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES, AND REGULATIONS APPLICABLE TO ALL WORK PERFORMED UNDER THE CONTRACT.

8. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, SIZES, AND LOCATIONS OF ALL EXISTING FACILITIES AND FEATURES BEFORE STARTING WORK AND SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

9. ALL CONSTRUCTION MATERIALS SHALL CONFORM TO THE CONTRACT SPECIFICATIONS.

10. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING ALL EXISTING MONUMENTS AND OTHER SURVEY MARKERS. MONUMENTS AND SURVEY MARKERS DESTROYED DURING CONSTRUCTION SHALL BE REPLACED BY A LICENSED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL PROVIDE SURVEYORS WITH AT LEAST 48 HOURS ADVANCE NOTICE.

11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING RECORD DRAWINGS FOR ALL WORK THROUGHOUT THE COURSE OF CONSTRUCTION. SUCH DRAWINGS SHALL RECORD THE LOCATION AND GRADE OF ALL IMPROVEMENTS AND FILLS THAT ARE CONSTRUCTED AND COPIES SHALL BE DELIVERED TO THE AGENCY PRIOR TO THE ACCEPTANCE OF THE WORK AS INDICATED IN THE SPECIFICATIONS.

12. DRAWINGS SHOWN WITH AERIAL PHOTOGRAPHS ARE PROVIDED FOR REFERENCE ONLY. ALL FACILITIES MAY NOT BE SHOWN ON PHOTOGRAPHS. THE CONTRACTOR SHALL SATISFY ITSELF AS TO THE LOCATION OF EXISTING FACILITIES THAT MAY BE AFFECTED BY CONSTRUCTION.

13. THE CONTRACTOR IS REQUIRED TO DEVELOP AND MAINTAIN A WATER POLLUTION CONTROL PROGRAM (WPCP) FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE EROSION AND SEDIMENT CONTROLS IN COMPLIANCE WITH THE NPDES CONSTRUCTION GENERAL PERMIT (Order No. 2012-2006-DWQ).

14. THE CONTRACTOR SHALL PROVIDE DUST CONTROL AT ALL TIMES.

15. A SET OF APPROVED PLANS SHALL BE ON THE JOB SITE AT ALL TIMES DURING CONSTRUCTION.

16. UNLESS OTHERWISE NOTED, STATIONING SHOWN ON THE PLANS ARE IN REFERENCE TO THE CENTERLINE OF THE PROPOSED STRUCTURE.

17. THE CONTRACTOR SHALL MAKE ACCOMMODATIONS FOR THE SAFE PASSAGE BY THE PUBLIC ALONG ALL PUBLIC UTILITY EASEMENTS AND ACCESS EASEMENTS USED IN CONNECTION WITH CONSTRUCTION ACTIVITIES.

18. ALL FITTINGS SHALL BE RESTRAINED.

19. THE CONTRACTOR SHALL ALLOW THE OWNER, OWNER'S REPRESENTATIVE, ENGINEER, AND UTILITY OWNERS ACCESS TO THE WORK WHENEVER IT IS IN PREPARATION AND PROGRESS.

BASIS OF DESIGN

1. GEOTECHNICAL INFORMATION USED FOR THIS DRAWING SET WAS PROVIDED BY SALEM ENGINEERING GROUP, INC. IN THE FOLLOWING DOCUMENT:

   A. GEOTECHNICAL ENGINEERING INVESTIGATION PROPOSED STORAGE TANK AT PARKWOOD PARK NWC GEORGIA AVENUE & WATT STREET, JANUARY 2016.

60% DESIGN

NO.	DESCRIPTION	ENGR INT.	BY	DATE
				COUNTY APPROVED

DATE: MAY 2019
SCALE: H: N/A V: N/A
DRAWN BY: D. DASTOUM
DESIGNED BY: E. GOSSE
CHECKED BY: J. LODGE

WOOD RODGERS
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Sacramento, CA 95816 Fax 916.341.7767

IMPROVEMENT PLANS FOR
MD19A&B - PARKWOOD
WATER SYSTEM IMPROVEMENTS
GENERAL NOTES
MADERA COUNTY CALIFORNIA

PROJECT NO. 8489.015

DRAWING G-2

SHT 2 OF 10

WOOD RODGERS

REGISTERED PROFESSIONAL ENGINEER
JEFFREY ALLEN LODGE
No. C55828
Exp. 12-31-18
CIVIL
STATE OF CALIFORNIA

DATE: _____

J:\Jobs\8489_Madera_County\8489.012_MD19AB Parkwood\Gen\DWG\MD19AB_W4A_G02.dwg 5/9/2019 3:03 PM Darius Dastoum

ABBREVIATIONS

A	AIR
AB	AGGREGATE BASE
AC	ASPHALTIC CONCRETE
ADPTR	ADAPTER
AGG	AGGREGATE
AL	ALUMINUM
ALT	ALTERNATE
APPROX	APPROXIMATE
AUX	AUXILIARY
AL, ALUM	ALUMINUM
APN	ASSESSOR'S PARCEL NUMBER
ARCH	ARCHITECTURAL
ASTM	AMERICAN SOCIETY OF TESTING MATERIALS
AR/AV	AIR RELEASE/VACUUM VALVE
AWG	AMERICAN WIRE GAUGE
AWWA	AMERICAN WATER WORKS ASSOCIATION
BC	BEGIN CURVE
BF	BLIND FLANGE
BFV	BUTTERFLY VALVE
BKFL	BACKFILL
BL	BASELINE
BLDG	BUILDING
BM	BENCH MARK
BO	BLOWOFF
BOT	BOTTOM
BOW	BACK OF WALK
BVC	BEGIN VERTICAL CURVE
CARV	COMBINATION AIR VALVE
CB	CATCH BASIN
CFM	CUBIC FEET PER MINUTE
C&G	CUB & GUTTER
CI	CAST IRON
℄	CENTER LINE
CL	CLASS
CL2	SODIUM HYPOCHLORITE
CLR	CLEARANCE
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CML&C	CEMENT MORTAR LINED & COATED
CMP	CORRUGATED META PIPE
CMU	CONCRETE MASONRY UNIT
CNTRL	CONTROL
CO	CLEAN OUT
CONC	CONCRETE
COND	CONDUIT
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS OR CONTROLLED
COORD	COORDINATE
CORP	CORPORATION
CP	CONTROL POINT
CPLG	COUPLING
CR	CURB RETURN
CTR	CENTER
CU	COPPER
CV	CHECK VALVE
CW	COLD WATER
CY	CUBIC YARD
D	DEPTH OR DRAIN
DBL	DOUBLE
DEG	DEGREE
DEPT	DEPARTMENT
DET	DETAIL
DI	DRAINAGE INLET OR DUCTILE IRON
DIA OR ⌀	DIAMETER
DIM	DIMENSION
DIP/DI	DUCTILE IRON PIPE
DMH	DRAIN MANHOLE
DN	DOWN
DS	DOWNSTREAM
DWG	DRAWING
DWY	DRIVEWAY
E	EAST OR EXISTING
EA	EACH
EC	END CURVE
ECC	ECCENTRIC
EFF	EFFLUENT
EG	EXISTING GROUND
EL/ELEV	ELEVATION
ELL/ELB	ELBOW
ELEC	ELECTRICAL
EMERG	EMERGENCY
EP	EDGE OF PAVMENT
EW	EACH WAY
EX/EXST	EXISTING
EXT	EXTERIOR
EVC	END OF VERTICAL CURVE
EXP	EXPANSION
(F)	FUTURE
FA	FOUL AIR
FC	FLEXIBLE COUPLING
FCA	FLANGED COUPLING ADAPTOR
FCO	FLOOR CLEANOUT
FCV	FLOW CONTROL VALVE
FD	FLOOR DRAIN
FF	FINISH FLOOR
FG	FINISH GRADE
FH	FIRE HYDRANT
FIG(S)	FIGURE(S)
FIN	FINISHED
FLEX	FLEXIBLE
FLG	FLANGED
FL	FLOWLINE
FLR	FLOOR
FM	FORCE MAIN
FND	FOUNDATION
FT	FEET OR FOOT
FTG	FOOTING
GA	GAUGE
GAL	GALLON
GAW	GRADE AT WALL
GALV	GALVANIZED
GB	GRADE BREAK
GIP	GALVANIZED IRON PIPE
GND	GROUND (ELEC)
GPM	GALLONS PER MINUTE
GS(P)	GALVANIZED STEEL (PIPE)
GV	GATE VALVE
GWB	GYPSUM WALL BOARD
H	HEIGHT
HA	HIGH PRESSURE AIR
HB	HOSE BIBB
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HL	HIGH LEVEL
HORIZ	HORIZONTAL
HP	HORSEPOWER
HPT	HIGH POINT
HR	HOUR
HT	HEIGHT
HVAC	HEATING, VENTILATION, AIR CONDITIONING
HW	HOT WATER
HWL	HIGHWATER LEVEL
HDR	HYDRAULIC
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IN	INCHES
INT	INTERIOR
INVT	INVERT
IPS	IRON PIPE SIZE
JCT	JUNCTION
JT	JOINT
L	LENGTH OR LEFT
LA	LOW PRESSURE AIR
LB	POUND
LF	LINEAR FEET
LPT	LOWPOINT
LSH	LEVEL SWITCH HIGH
LSL	LEVEL SWITCH LOW
LT	LEFT OR LIGHT
LWL	LOW WATER LEVEL
MAG	MAGNETIC
MATL	MATERIAL
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
ME	MATCH EXISTING
MFR	MANUFACTURER
MG	MILLION GALLONS
MH	MANHOLE
MIN	MINIMUM
MJ	MECHANICAL JOINT
MRGWB	MOISTURE RESISTANT GYPSUM WALL BOARD
MSTR	MASTER
N	NEW OR NORTH
NO OR #	NUMBER
NPT	NATIONAL PIPE THREAD
NRS	NON-RISING STEM
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF	OVERFLOW
(OH)	OVERHEAD
OPNG	OPENING
OS&Y	OUTSIDE STEM & YOKE
P	POWER
P&ID	PROCESS & INSTRUMENTATION DIAGRAM
PC	PIECE
PE	PLAIN END OR POLYETHYLENE PIPE
PERF	PERFORATED
PG	PRESSURE GAUGE
PI	PRESSURE INDICATOR OR POINT OF INTERSECTION
PL OR ℄	PLATE OR PROPERTY LINE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PM	PRESSURE MAIN
P/P	POWER POLE/UTILITY POLE
PRESS	PRESSURE
PS	PIPE SUPPORT
P/S	PUMPING STATION
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POINT
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
PUE	PUBLIC UTILITY EASEMENT
R	RADIUS
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RED	REDUCER
REINF	REINFORCING
REL	RELATIVE
REQD	REQUIRED
RESTR	RESTRAINED
REV	REVISION
ROW	RIGHT OF WAY
RPBP	REDUCED PRESSURE BACKFLOW
RT	RIGHT
RW	RAW WATER
S	SOUTH OR SLOPE
SA	SAMPLE
SCH	SCHEDULE
SD	STORM DRAIN
SDMH	STORM DRAIN MANHOLE
SEC	SECTION
SHT	SHEET
SHWR	SHOWER
SMH	SEWER MANHOLE
SPEC	SPECIFICATIONS
SQ	SQUARE
SS	SANITARY SEWER
SST	STAINLESS STEEL
STA	STATION
STD	STANDARD
STL	STEEL
STRUCT	STRUCTURAL
SUBM	SUBMERSION
SV	SOLENOID VALVE
SW	SOUTHWEST, SWITCH, OR SIDEWALK
T OR TEL	TELEPHONE
T&B	TOP & BOTTOM
TBC	TOP BACK OF CURB
TEMP	TEMPORARY
TF	TOP OF FOOTING
THD	THREADED
TOC	TOP OF CONCRETE OR CURB
TOE	TOE OF SLOPE
TOG	TOP OF GROUND ELEVATION
TOPE	TOP OF PAVEMENT ELEVATION
TOS	TOP OF SLAB
TOSE	TOP OF SLAB ELEVATION
TP	TELEPHONE POLE
TRANS	TRANSFORMER OR TRANSITION
TRW	TOP OF RETAINING WALL
TW	TREATED WATER
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UG	UNDERGROUND
VCP	VITRIFIED CLAY PIPE
VERT	VERTICAL
−V	−VOLT
VB	VALVE BOX
VTR	VENT THROUGH ROOF
W	WATER, WATT, WEST, OR WIDTH
WA	WASTE
WH	WHARF HYDRANT, WATER HEATER
WP	WEATHERPROOF
WS	WATER SURFACE, WATER STOP
WSP	WELDED STEEL PIPE
WT	WEIGHT
WTP	WATER TREATMENT PLANT
WWF	WELDED WIRE FABRIC
WWM	WELDED WIRE MESH
XING	CROSSING
YD	YARRD
@	AT
&	AND
W/	WITH
W/O	WITHOUT

ARCHITECTURAL STRUCTURAL

CONCRETE

REINFORCEMENT IN SECTION

PRECAST CONCRETE

MORTAR, GROUT OR PLASTER

GRATING SPAN

WOOD

BATT INSULATION

OPENING OR DEPRESSION IN SLAB OR WALL

OPENING WITH GRATING COVER

GENERAL

WATER SURFACE

NATURAL GROUND OR GRADE

GRANULAR MATERIAL SUCH AS CRUSHED ROCK OR GRAVEL

CIVIL LEGEND

EXISTING	PROPOSED	DESCRIPTION
○	●	DRAIN MANHOLE
○	●	SEWER MANHOLE
□	■	DRAIN INLET
— —○— —	—●—	CLEAN OUT
		CENTERLINE
6"S	6"S	SEWER LINE AND SIZE
12"D	12"D	DRAIN LINE AND SIZE
6"W	6"W	WATER LINE AND SIZE
		WATER SERVICE
		WATER VALVE
		FIRE HYDRANT
X	X	CHAIN LINK FENCE
		DRIVEWAY
		TRAFFIC SIGN AS NOTED
	S	SEWER SERVICE
		R.P. BACKFLOW PREVENTER
		DOUBLE CHECK VALVE
		AIR RELEASE VALVE
		BLOW-OFF
—G—T—E—	—G—T—E—	GAS, TELEPHONE OR ELECTRIC
		PROPERTY LINE
		MONUMENT
		STREET LIGHT
		FLUSHING BRANCH
		SIDEWALK RAMP
31.25	31.25	SPOT ELEVATION
		STREET NAME SIGN (PERMANENT)
		30" R1 SIGN (STOP)
P=	P=	PAD GRADE ELEVATION
	115	FINISH GRADE CONTOURS
	120.0	FINISH GRADE SPOT ELEVATION

60% DESIGN

MECHANICAL

VALVES AND DEVICES

GATE VALVE (NORMALLY OPEN)

GATE VALVE (NORMALLY CLOSED)

BALL VALVE (NORMALLY OPEN)

BALL VALVE (NORMALLY CLOSED)

BUTTERFLY VALVE

PINCH VALVE

NEEDLE VALVE

DOUBLE LEAF CHECK VALVE

CHECK VALVE

BALL CHECK VALVE

FLAP GATE

PRESSURE AND VACUUM RELIEF VALVE

VACUUM RELIEF VALVE

PRESSURE RELIEF VALVE

IN-LINE, SPRING LOADED RELIEF VALVE

PRESSURE REDUCING VALVE

BACK PRESSURE REDUCING VALVE

S SOLENOID VALVE

MUD VALVE

RELIEF VALVE WEIGHTED

PIPE LINE DEVICE SYMBOLS

STRAINER

REDUCER OR INCREASER

TRAP

DRAIN

PI PRESSURE INDICATOR

PS PRESSURE SWITCH

M FLOW METER

PIPE AND FITTINGS

SINGLE LINE	DOUBLE LINE		SINGLE LINE	DOUBLE LINE	
		FLANGED JOINT			UNION
		PLAIN OR GROOVED END MECHANICAL COUPLING			ELBOW UP
		PUSH ON MECHANICAL OR, BALL AND SOCKET JOINT			ELBOW DOWN
		WELD JOINT			TEE UP
		SLEEVE TYPE MECHANICAL COUPLING			TEE DOWN
		RESTRAINED SLEEVE TYPE MECHANICAL COUPLING			LATERAL UP
		FLANGED COUPLING ADAPTER			LATERAL DOWN
		RESTRAINED FLANGED COUPLING ADAPTER			CONCENTRIC REDUCER
		GROOVED END ADAPTER FLANGE			ECCENTRIC REDUCER

REFERENCE SYMBOL

1 / C-2 — SECTION DESIGNATION; DRAWN ON DWG NO. C2

1 / C-2 — DETAIL DESIGNATION; DRAWN ON DWG NO. C2

DETAIL SYMBOL

1 / C-2 — DETAIL DESIGNATION; FIRST SHEET WHERE DETAIL IS REFERENCED

IDENTIFICATION TAG

S162-VLV-011

FACILITY NO. — EQUIPMENT TYPE — EQUIPMENT NO.

WOOD RODGERS

REGISTERED PROFESSIONAL ENGINEER JEFFREY ALLEN LODGE No. C55828 Exp. 12-31-18 CIVIL STATE OF CALIFORNIA

DATE: _____

NO.	DESCRIPTION	ENGR INT.	BY	DATE COUNTY APPROVED

DATE: MAY 2019 V: N/A
SCALE: H: N/A V: N/A
DRAWN BY: D. DASTOUM
DESIGNED BY: E. GOSSE
CHECKED BY: J. LODGE

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C St. Bldg. 100-B Sacramento, CA 95816
Tel 916.341.7760 Fax 916.341.7767

IMPROVEMENT PLANS FOR
MD19A&B - PARKWOOD
WATER SYSTEM IMPROVEMENTS
GENERAL SYMBOLS AND ABBREVIATIONS
MADERA COUNTY CALIFORNIA

PROJECT NO. 8489.015

DRAWING G-3

SHT 3 OF 10

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60% DESIGN

WATT STREET

EXISTING ELECTRICAL PANEL

(E) TREE (TYP)

EXISTING SAND SEPERATOR TO BE REMOVED SEE SHEET C-2

EXISTING HYDROPNEUMATIC TANK

EXISTING BOOSTER PUMP STATION

EXISTING BASKETBALL COURT TO BE PROTECTED DURING CONSTRUCTION

EXISTING WATER STORAGE TANK

PRODUCTION WELL 4A

10' 5' 0 10' 20'

HORIZ SCALE: 1" = 10'

NO.	DESCRIPTION	ENGR INIT.	BY	DATE
				COUNTY APPROVED

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DRAWN BY: D. DASTOUM
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3301 C ST, BLDG. 100-B TEL 916.341.7760
SACRAMENTO, CA 95816 FAX 916.341.7767

IMPROVEMENT PLANS FOR
MD19A&B - PARKWOOD
WATER SYSTEM IMPROVEMENTS
EXISTING SITE PLAN
MADERA COUNTY CALIFORNIA

WOOD RODGERS

REGISTERED PROFESSIONAL ENGINEER
JEFFREY ALLEN LODGE
No. C55882S
Exp. 12-31-18
CIVIL
STATE OF CALIFORNIA

DATE: _____

PROJECT NO. 8489.015

DRAWING C-1

SHT 4 OF 10

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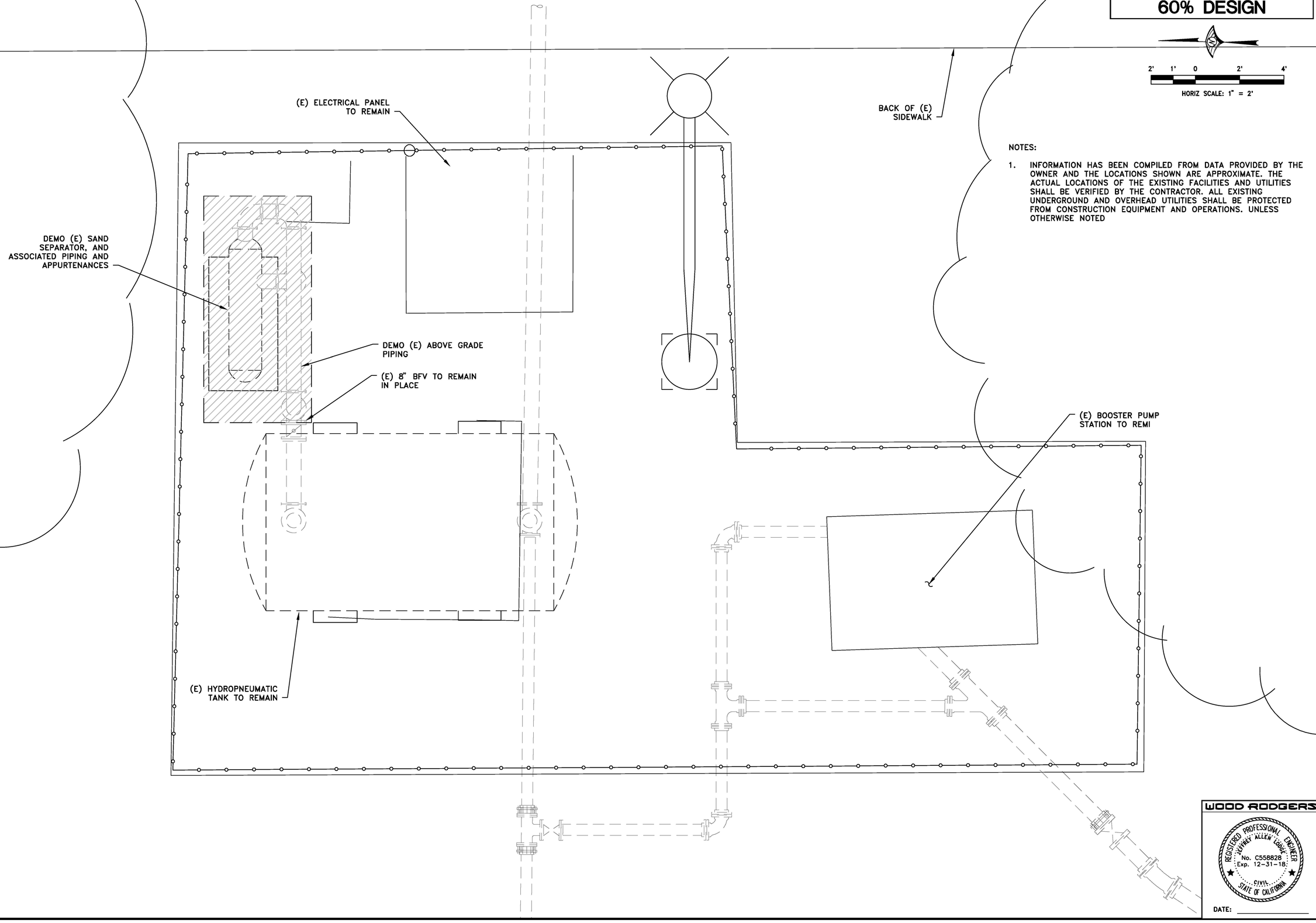
60% DESIGN



2' 1' 0 2' 4'

HORIZ SCALE: 1" = 2'

NOTES:

1. INFORMATION HAS BEEN COMPILED FROM DATA PROVIDED BY THE OWNER AND THE LOCATIONS SHOWN ARE APPROXIMATE. THE ACTUAL LOCATIONS OF THE EXISTING FACILITIES AND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR. ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES SHALL BE PROTECTED FROM CONSTRUCTION EQUIPMENT AND OPERATIONS. UNLESS OTHERWISE NOTED

NO.	DESCRIPTION	ENGR INIT	BY	DATE
				COUNTY APPROVED

DATE: MAY 2019
SCALE: H: 1" = 2' V: N/A
DRAWN BY: D. DASTOUM
DESIGNED BY: E. GOSSE
CHECKED BY: J. LODGE

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3301 C ST, BLDG. 100-B TEL 916.341.7760
SACRAMENTO, CA 95816 FAX 916.341.7767

IMPROVEMENT PLANS FOR

MD19A&B - PARKWOOD
WATER SYSTEM IMPROVEMENTS
SITE DEMOLITION PLAN

MADERA COUNTY CALIFORNIA

WOOD RODGERS

REGISTERED PROFESSIONAL ENGINEER
JEFFREY ALLEN LODGE
No. C55828
Exp. 12-31-18
CIVIL
STATE OF CALIFORNIA

DATE: _____

PROJECT NO. 8489.015

DRAWING C-2

SHT 5 OF 10

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60% DESIGN

WATT STREET

(E) TREE (TYP)

TO DISTRIBUTION

6' DOUBLE SWING GATE

10'-2"

27'-9" SEE NOTE 1

8"W

EXTENDED FENCE

DIESEL GENERATOR

WELL 4A CONNECTION
SEE SHEET M-4

(E) 8" WATER

8"W

INSTALL 8" WATER AND ELECTRICAL CONDUITS BELOW (E) SIDEWALK SEE NOTE 2 (TYP)

8"W

8" WATER

EXISTING WATER STORAGE TANK

(E) TREE TO BE REMOVED

12' WIDE DOUBLE SWING GATE

21'

WELL 4A DISCHARGE
SEE SHEET M-3

AC DRIVEWAY

28'

12"SD

10'

10'

36" SDMH
RIM EL=259.0'
INV EL 254.4'

12" PVC SDR PIPE
MIN 36" COVER

36" DIAMETER PRECAST CONCRETE MANHOLE W/ GRATED TOP (TYP)
RIM EL=264'±
INV EL=259.5'

10' 5' 0 10' 20'

HORIZ SCALE: 1" = 10'

NOTES:

1. LENGTH OF NEW FENCE AROUND GENERATOR SHOWN IS FOR BIDDING PURPOSES ONLY. MATCH LENGTH OF EXISTING PARALLEL FENCE, AND EXTEND NEW FENCE FROM EXISTING CORNER POSTS.
2. WHEN TRENCHING THROUGH SIDEWALK, REMOVE AND REPLACE SIDEWALK SECTION FROM EXPANSION JOINT TO EXPANSION JOINT.

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DATE: MAY 2019
SCALE: H: 1" = 10' V: N/A
DRAWN BY: D. DASTOUM
DESIGNED BY: E. GOSSE
CHECKED BY: J. LODGE

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SACRAMENTO, CA 95816 FAX 916.341.7767

IMPROVEMENT PLANS FOR
MD19A&B - PARKWOOD
WATER SYSTEM IMPROVEMENTS
SITE IMPROVEMENTS AND YARD PIPING PLAN
MADERA COUNTY CALIFORNIA

WOOD RODGERS

REGISTERED PROFESSIONAL ENGINEER
JEFFREY ALLEN LODGE
No. C55828
Exp. 12-31-20
CIVIL
STATE OF CALIFORNIA

DATE: _____

PROJECT NO. 8489.015

DRAWING C-3

SHT 6 OF 10

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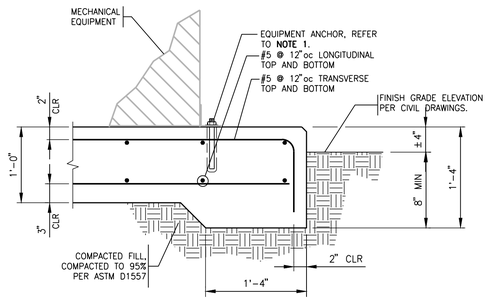
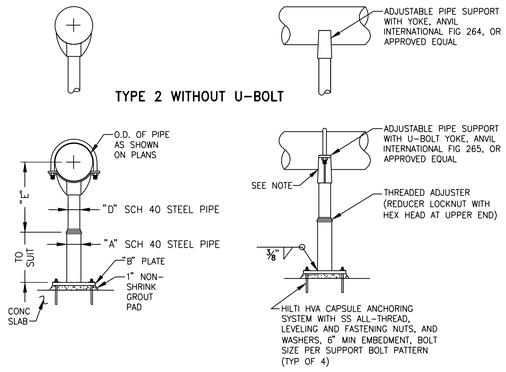
60% DESIGN

NOTES:

1. ALL EQUIPMENT ANCHORAGE SHALL BE A MINIMUM OF 15" FROM EDGE OF SLAB UNLESS APPROVED BY THE ENGINEER



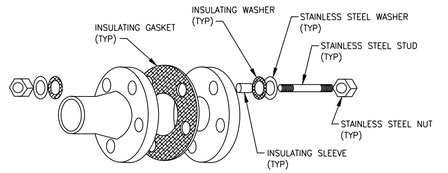
1 / – TYPICAL SLAB ON GROUND
SCALE: N/A



DIMENSIONS (INCHES)						
PIPE SIZE	A	B	D	E. MIN	E. MAX	MAX LOAD
2-1/2	2-1/2	3/8X8X8	1-1/2	8	13	1,800
3				8-1/4	13-1/4	
3-1/2				8-1/2	13-1/2	
4	3	3/8X10X10	2-1/2	9-1/4	14	3,800
5				10	14-3/4	
6				10-1/2	15-1/4	
8		1/2X12X12		11-3/4	16-1/2	
10				13-1/2	18-1/4	
12				15	19-3/4	
14	4		3	16-1/4	20-3/4	5,300
16				17-3/4	22-1/4	
18	6	3/4X12X12	3-1/2	19-1/2	24	6,700
20				21	25-1/2	
22			4	21-5/16	25-13/16	7,300
24				23-3/4	28-1/4	
26				24-5/16	28-13/16	
30				27	31-1/2	
32				28-1/4	32-3/4	
36				30-1/4	34-3/4	

NOTES:
1. FOR TYPE 1 SUPPORTS WITH U-BOLTS ONLY: PROVIDE TYPE 316 SS PIPE SHIELDS 6" WIDE, AT ADJUSTABLE PIPE SUPPORTS, AND AROUND ALL NON-METALLIC PIPE. PROVIDE TAPE COAT MOLDABLE SEALANT BETWEEN ENTIRE CONTACT SURFACE OF SHIELDS AND PIPE. WRAP COPPER PIPE WITH 1/8" THICK NEOPRENE STRIP.
2. ALL COMPONENTS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION, UNLESS NOTED OTHERWISE.

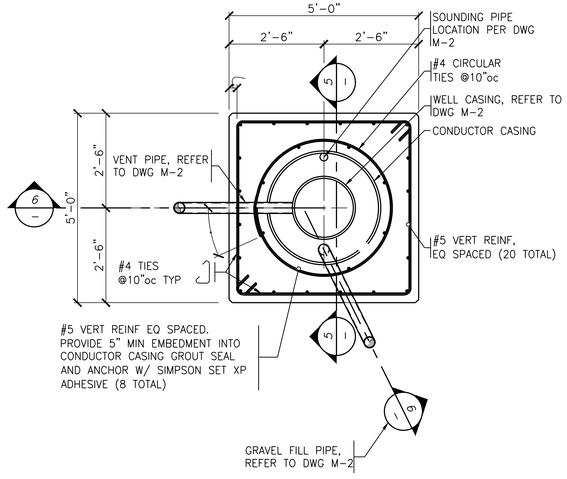
2 / – PIPE SUPPORT W/ OR W/O U-BOLTS
SCALE: N/A



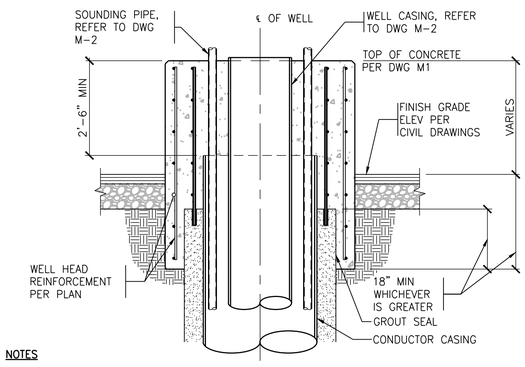
NOTE:

PROVIDE INSULATED JOINT AT ALL STEEL TO DUCTILE IRON PIPE CONNECTIONS AND WHERE OTHERWISE SHOWN ON PLANS.

3 / – INSULATING JOINT FLANGE
SCALE: N/A



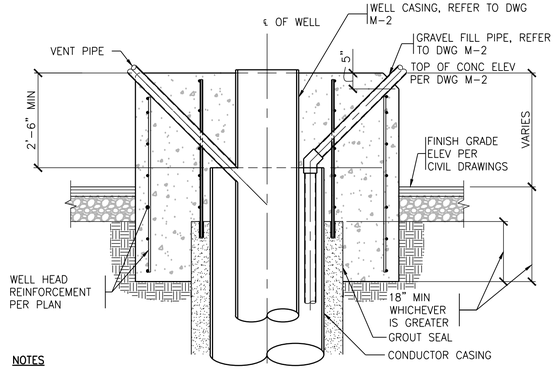
4 / – DOMESTIC WATER WELL HEAD PLAN
SCALE: 1/2" = 1'-0"



NOTES

1. PUMP, VENT PIPE, AND PUMP COLUMN PIPE INFORMATION IS NOT SHOWN FOR CLARITY. REFER TO DRAWING M-2.

5 / – DOMESTIC WATER WELL HEAD SECTION
SCALE: 1/2" = 1'-0"



NOTES

1. PUMP, SOUNDING PIPE, AND PUMP COLUMN PIPE INFORMATION IS NOT SHOWN FOR CLARITY. REFER TO DRAWING M-2.

6 / – DOMESTIC WATER WELL HEAD DIAGONAL SECTION
SCALE: 1/2" = 1'-0"

WOOD RODGERS

REGISTERED PROFESSIONAL ENGINEER
EDWARD A. DOSSE
M 32246
EXP. 12-31-20
MECHANICAL
STATE OF CALIFORNIA

DATE: _____

NO.	DESCRIPTION	ENGR INT	BY	COUNTY APPROVED	DATE

DATE: MAY 2019
SCALE: H: AS SHOWN V: N/A
DRAWN BY: D. DASTOUM
DESIGNED BY: E. GOSSE
CHECKED BY: J. LODGE

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C St. Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

IMPROVEMENT PLANS FOR
MD19A&B - PARKWOOD
WATER SYSTEM IMPROVEMENTS
MECHANICAL DETAILS
CALIFORNIA
MADERA COUNTY

PROJECT NO.
8489.015

DRAWING
M-1

SHT **7** OF **10**

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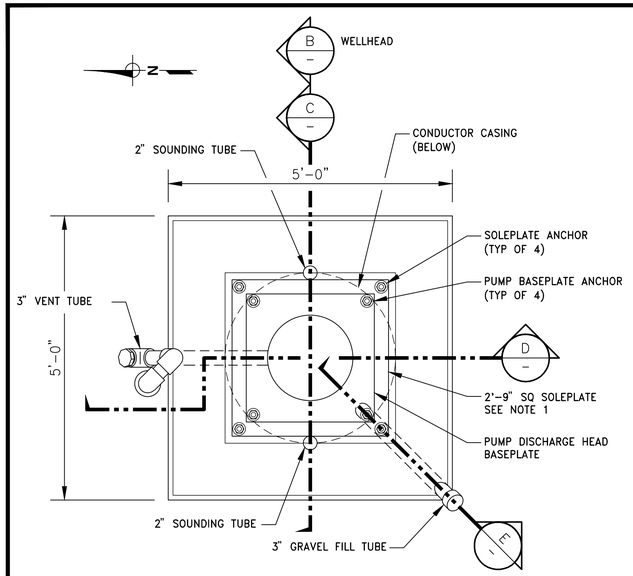
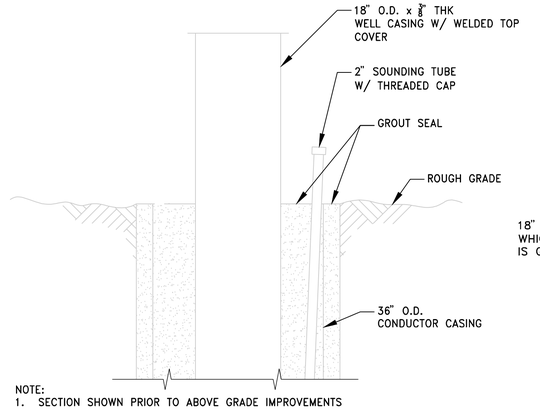
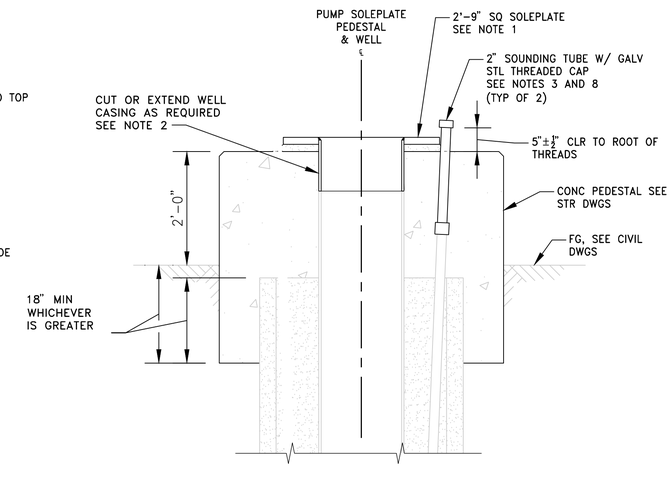


2 / – WELL HEAD PLAN
SCALE: 3/4"=1'-0"



NOTE:
1. SECTION SHOWN PRIOR TO ABOVE GRADE IMPROVEMENTS

B / – SECTION
(WELLHEAD SHOWN)
SCALE: NTS



C / – SECTION
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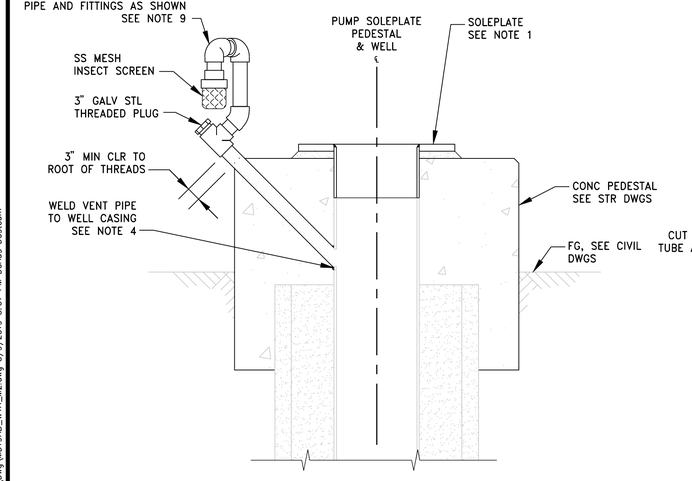
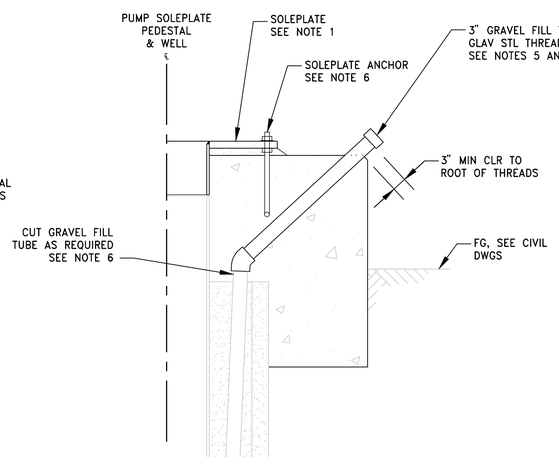
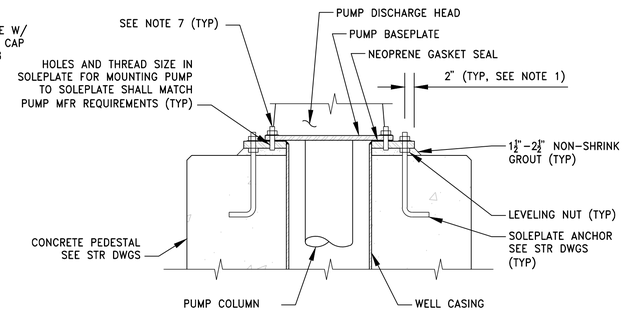


D / – SECTION
SCALE: 3/4"=1'-0"



E / – SECTION
SCALE: 3/4"=1'-0"



2 / – ANCHORAGE DETAIL
SCALE: 3/4"=1'-0"

60% DESIGN

NOTES:

1. SOLEPLATE SHALL BE PROVIDED BY PUMP MANUFACTURER. CONFIRM DIMENSIONS OF SOLEPLATE SHOWN WITH THE MANUFACTURER. THICKNESS SHALL BE DETERMINED BY THE MANUFACTURER.
2. FINAL HEIGHT OF TOP OF WELL CASING SHALL BE WITHIN THE THICKNESS OF THE SOLEPLATE. SEAL WELD O.D. OF WELL CASING TO I.D. OF SOLEPLATE OPENING. REMOVE ALL WELD SPATTER AND GRIND SMOOTH ANY WELDS PROTRUDING ABOVE THE TOP SURFACE OF THE SOLEPLATE.
3. REMOVE 2" THREADED CAPS ON 2" SOUNDING TUBES, TWO TOTAL. EXTEND SOUNDING TUBES WITH 2" GALVANIZED STEEL THREADED COUPLERS, AND 2" SCHEDULE 40 GALVANIZED STEEL THREADED PIPE OF THE REQUIRED LENGTH FOR THE FINAL INSTALLATION AS SHOWN. PROVIDE A GALVANIZED STEEL CAP ON TOP OF EACH SOUNDING TUBE.
4. REMOVE GALVANIZED COATING ON SKEWERED END OF 3" VENT PIPE TO ALLOW PIPE TO BE WELDED TO THE WELL CASING AT APPROXIMATELY 45° FROM HORIZONTAL. PRIOR TO WELDING, CUT OBLONG HOLE AT LOCATION OF VENT PIPE WELDMENT. SEAL WELD VENT PIPE SKEWER TO WELL CASING. USE OF A WELDOLET AT THE INTERFACE IS AT THE CONTRACTOR'S OPTION.
5. REMOVE 3" THREADED CAP ON 3" GRAVEL FILL TUBE. EXTEND GRAVEL FILL TUBE BY WELDING A 3" SOCKET-WELD 45° STEEL ELBOW AND ADDITIONAL LENGTH OF 3" PLAIN-END BY THREADED-END SCHEDULE 40 GALVANIZED STEEL PIPE AS SHOWN. REMOVE GALVANIZED COATING ON UNTHREADED LOWER END OF 3" PIPE TO ALLOW PIPE TO BE WELDED TO THE SOCKET-WELD ELBOW. PROVIDE 3" GALVANIZED STEEL THREADED CAP ON TOP OF GRAVEL FILL TUBE.
6. GRAVEL FILL TUBE MUST BE CUT TO LOCATE SOCKET-WELD ELBOW LOW AS SHOWN TO AVOID INTERFERENCE BETWEEN THE NEW EXTENDED PORTION OF THE GRAVEL FILL TUBE AND THE SOLEPLATE ANCHOR AT THE SAME CORNER.
7. PROVIDE BOLTS IN PLACE OF STUDS AT LOCATION OF PUMP BASE PLATE STUDS IN SOLEPLATE. TREAT ENDS OF BOLTS WITH ANTI-SIEZE COMPOUND AND INSERT TO A DEPTH OF 1 FULL THREAD BELOW THE UNDERSIDE OF THE SOLEPLATE PRIOR TO GROUTING THE SOLEPLATE IN PLACE. AFTER GROUT PLACEMENT AND CURING, REMOVE BOLTS AND REPLACE WITH STUDS TO ALLOW FOR PUMP PLACEMENT. STUD, NUT AND WASHER GRADES AND SIZES SHALL MEET PUMP MANUFACTURER REQUIREMENTS, AND A MINIMUM OF TWO COMPLETE THREADS SHALL REMAIN EXPOSED ABOVE EACH NUT AFTER COMPLETION OF PUMP INSTALLATION.
8. CONTRACTOR SHALL WELD CHAIN AND LINKS TO THE GALVANIZED STEEL THREADED CAP OR PLUG, AND TO THE ADJACENT MATING PIPE AT EACH LOCATION SHOWN. A SINGLE CHAIN LINK IS TO BE WELDED TO THE CAP OR PLUG. CONTRACTOR SHALL WELD THE FIRST LINK OF A FOUR LINK STRAND CHAIN TO THE PIPE ADJACENT TO THE CAP OR PLUG. CHAIN STRAND AND LINK SHALL BE LOCKABLE BY OWNER PROVIDED PADLOCK SUCH THAT CAP OR PLUG CANNOT BE REMOVED WHILE PADLOCK IS IN PLACE. CHAIN SRANDS AND LINK SHALL BE GALVANIZED STEEL OR ZINC PLATED STEEL, McMASTER-CARR PART NO. 3594T96, OR EQUAL. REPAIR WELDED AREAS WITH A COLD GALVANIZING SPRAY.
9. VENT PIPE ASSEMBLY MUST BE AT LEAST 36" ABOVE FINISH GRADE AND SCREENED WITH #24 STAINLESS STEEL MESH.

NO.	DESCRIPTION	ENGR INIT.	BY	DATE
				COUNTY APPROVED

DATE: MAY 2019
SCALE: H: AS SHOWN V: N/A
DRAWN BY: D. DASTOUM
DESIGNED BY: E. GOSSE
CHECKED BY: J. LODGE

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C St. Bldg. 100-B Tel 916.341.7760
Sacramento, CA 95816 Fax 916.341.7767

IMPROVEMENT PLANS FOR
MD19A&B - PARKWOOD
WATER SYSTEM IMPROVEMENTS
MECHANICAL SECTIONS AND DETAILS
MADERA COUNTY CALIFORNIA

WOOD RODGERS

REGISTERED PROFESSIONAL ENGINEER
EDWARD A. GOSSE
M 32246
EXP. 12-31-20
MECHANICAL
STATE OF CALIFORNIA

DATE: _____

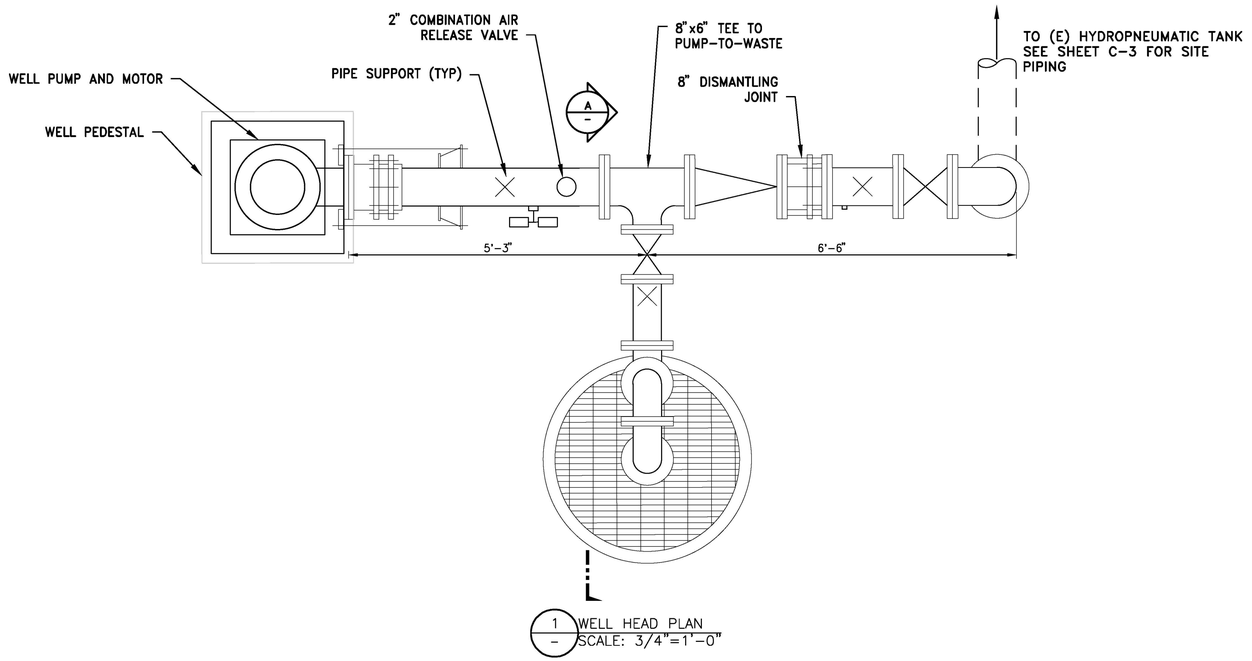
PROJECT NO.
8489.015

DRAWING
M-2

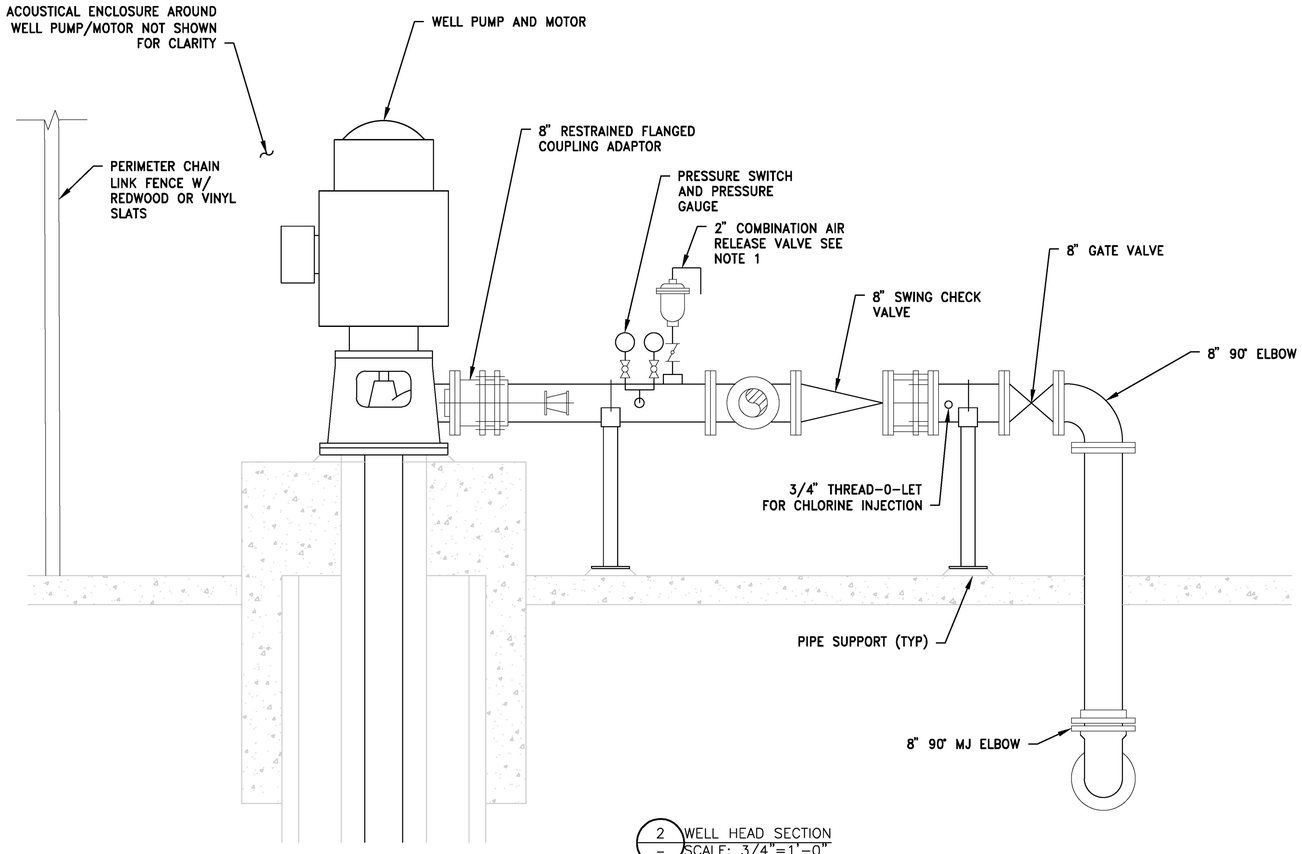
SHT 8 OF 10

J:\Jobs\8489_Madera_County\8489.012_MD19AB Parkwood\Mech\Dwg\MD19AB_W4A_M2.dwg 5/9/2019 3:07 PM Darius Dastoum

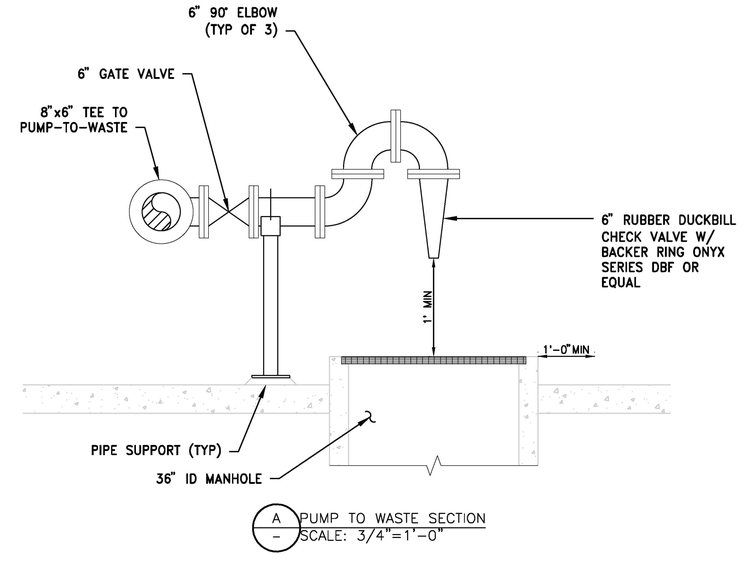
60% DESIGN



1 / – WELL HEAD PLAN
SCALE: 3/4"=1'-0"



2 / – WELL HEAD SECTION
SCALE: 3/4"=1'-0"



A / – PUMP TO WASTE SECTION
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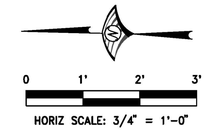


HORIZ SCALE: 3/4" = 1'-0"

NOTES:

1. COMBINATION AIR RELEASE VALVE VENTS MUST BE AT LEAST 36" ABOVE FINISH GRADE AND SCREENED WITH #24 STAINLESS STEEL MESH

NO.	DESCRIPTION	ENGR INIT.	BY	DATE COUNTY APPROVED

DATE: MAY 2019
SCALE: H:3/4" = 1' V: N/A
DRAWN BY: D. DASTOUM
DESIGNED BY: E. GOSSE
CHECKED BY: J. LODGE

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C ST, BLDG. 100-B TEL 916.341.7760
SACRAMENTO, CA 95816 FAX 916.341.7767

IMPROVEMENT PLANS FOR
MD19A&B - PARKWOOD WATER SYSTEM IMPROVEMENTS
WELL 4A MECHANICAL PLAN AND SECTION
MADERA COUNTY CALIFORNIA

WOOD RODGERS

REGISTERED PROFESSIONAL ENGINEER
EDWARD A. GOSSE
M 32246
EXP. 12-31-20
MECHANICAL
STATE OF CALIFORNIA

DATE: _____

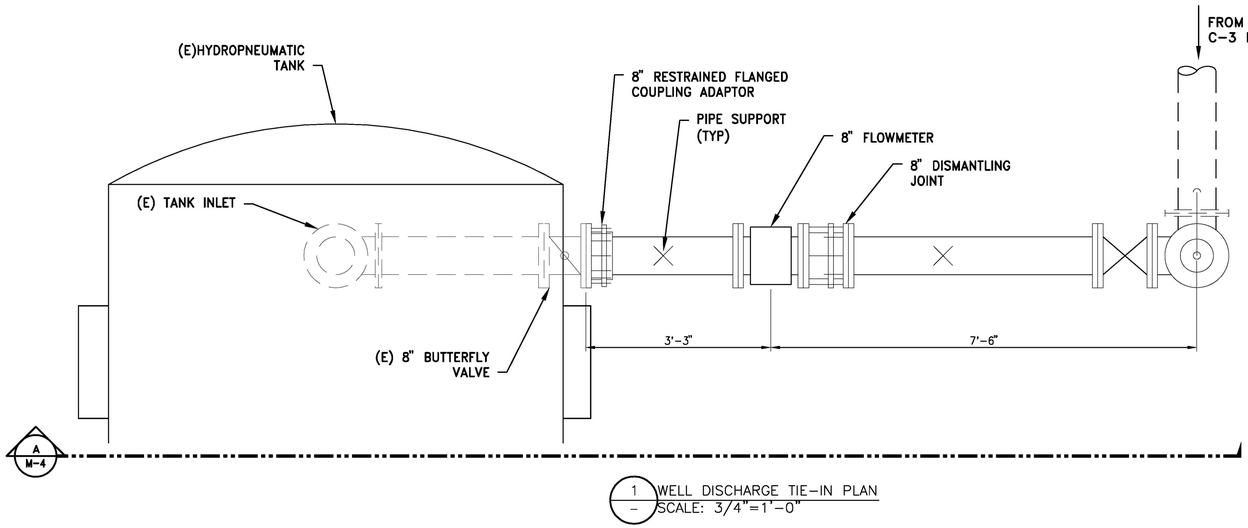
PROJECT NO. 8489.015

DRAWING M-3

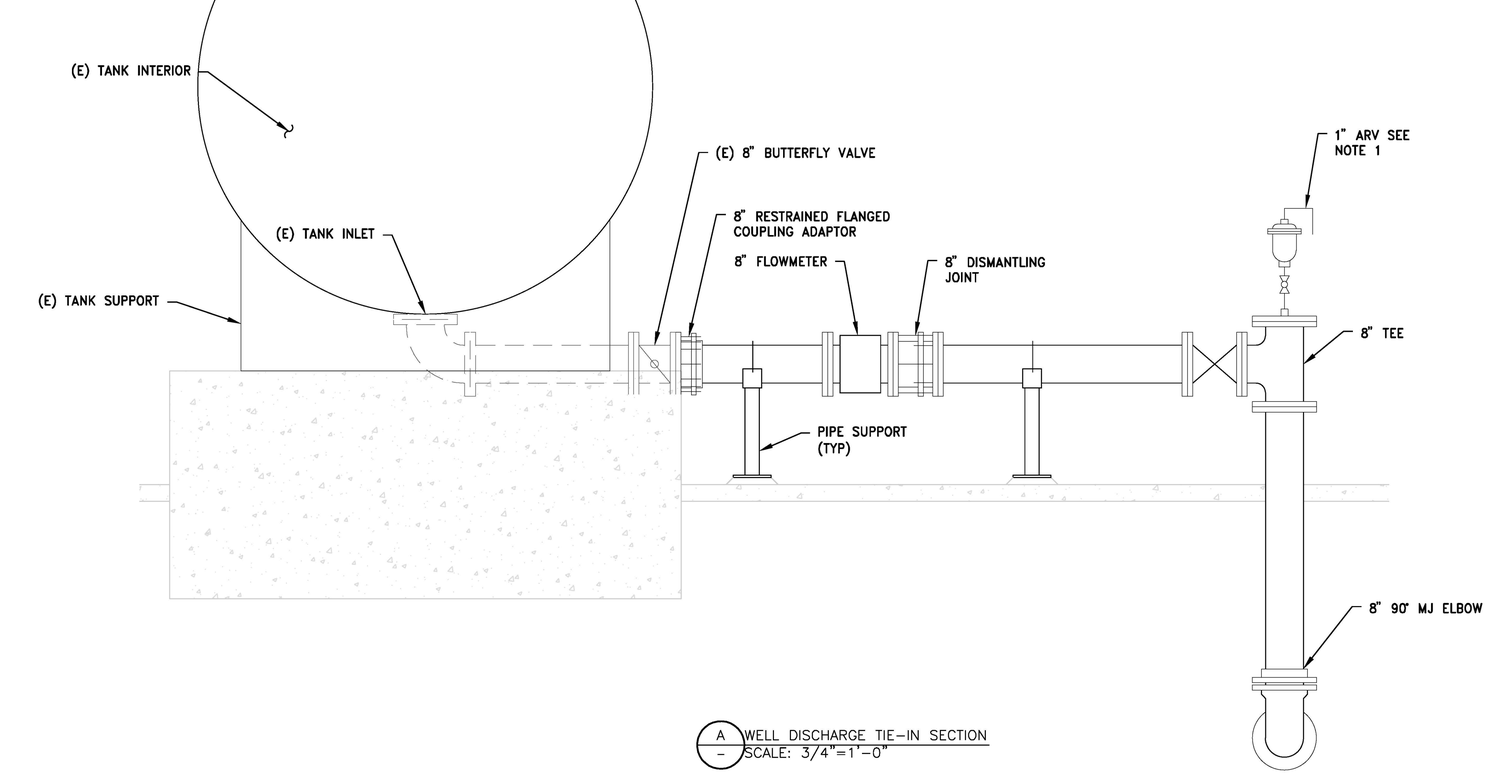
SHT 9 OF 10

J:\Jobs\8489_Modera_County\8489.012_MD19AB Parkwood\Mech\Dwg\MD19AB_WA4_M3.dwg 5/9/2019 3:06 PM Darius Dastoum

60% DESIGN



1 / – WELL DISCHARGE TIE-IN PLAN
SCALE: 3/4"=1'-0"



A / – WELL DISCHARGE TIE-IN SECTION
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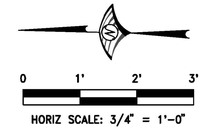


NOTES:

1. AIR RELEASE VALVE VENTS MUST BE AT LEAST 36" ABOVE FINISH GRADE AND SCREENED WITH #24 STAINLESS STEEL MESH

NO.	DESCRIPTION	ENGR INIT.	BY	DATE COUNTY APPROVED

DATE: MAY 2019
SCALE: H:3/4" = 1' V: N/A
DRAWN BY: D. DASTOUM
DESIGNED BY: E. GOSSE
CHECKED BY: J. LODGE

WOOD RODGERS
DEVELOPING INNOVATIVE DESIGN SOLUTIONS
3301 C ST, BLDG. 100-B TEL 916.341.7760
SACRAMENTO, CA 95816 FAX 916.341.7767

IMPROVEMENT PLANS FOR
MD19A&B - PARKWOOD
WATER SYSTEM IMPROVEMENTS
WELL 4A DISCHARGE TIE-IN CONNECTION
MADERA COUNTY CALIFORNIA

WOOD RODGERS

REGISTERED PROFESSIONAL ENGINEER
EDWARD A. GOSSE
M 32246
EXP. 12-31-20
MECHANICAL
STATE OF CALIFORNIA

DATE: _____

PROJECT NO. 8489.015

DRAWING **M-4**

SHT **10** OF **10**

J:\Jobs\8489_Madera_County\8489.012_MD19AB Parkwood\Mech\Dwg\MD19AB_W4A_M4.dwg 5/9/2019 3:08 PM Darius Dastoum

APPENDIX 3

California Natural Diversity Database Query Results

WOOD RODGERS

May 21, 2019

Mr. Gabriel Edwards
State Water Resources Control Board
1001 I Street, 16th Floor.
Sacramento, California 95814

Dear Mr. Edwards:

Wood Rodgers, Inc. on behalf of the Madera County Public Works Department (MCPW) has prepared and is submitting this Biological Assessment for the Parkwood CMD 19A&B Water System Improvements.

On behalf of MCPW we have determined that the proposed action will have No Effect on listed species/designated critical habitat and we are requesting concurrence on this determination of effect.

Sincerely,
WOOD RODGERS, INC.

Leslie Burnside, Associate
Environmental program Manager

Attached:
Biological Assessment

CC: Ramon Mendez, MCPW
Jeffrey Lodge, Wood Rodgers

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Consultation Code: 08ESMF00-2019-SLI-1883
Event Code: 08ESMF00-2019-E-06039
Project Name: Madera County PW Parkwood MD 19AB

May 09, 2019

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2019-SLI-1883

Event Code: 08ESMF00-2019-E-06039

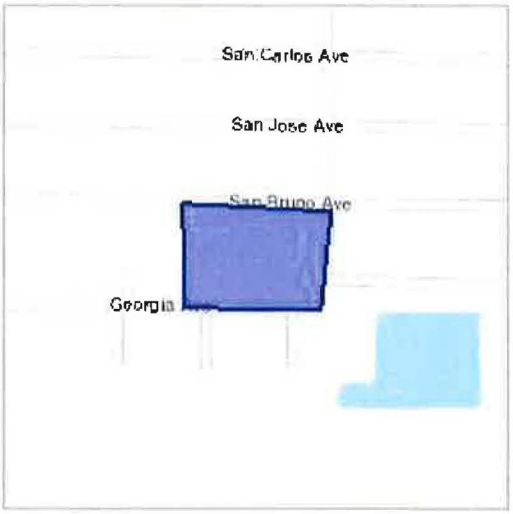
Project Name: Madera County PW Parkwood MD 19AB

Project Type: WATER SUPPLY / DELIVERY

Project Description: Replacement Well

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/36.931901255728356N120.05222930862294W



Counties: Madera, CA

Endangered Species Act Species

There is a total of 9 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Fresno Kangaroo Rat *Dipodomys nitratoides exilis* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5150 Species survey guidelines: https://ecos.fws.gov/ipac/guideline/survey/population/37/office/11420.pdf	Endangered
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard *Gambelia silus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander *Ambystoma californiense* Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Hairy Orcutt Grass *Orcuttia pilosa* There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2262	Endangered

Critical habitats

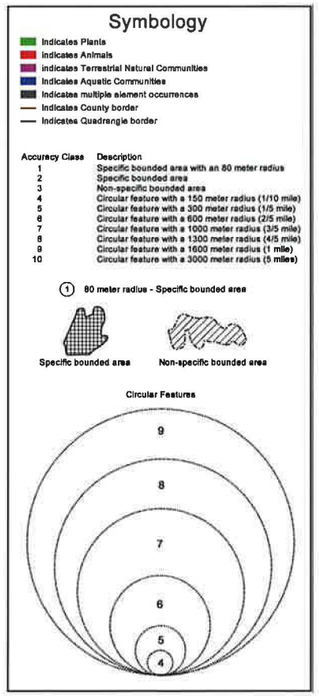
THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

In cooperation with:
NatureServe
www.natureserve.org

California Native Plant Society
www.cnps.org

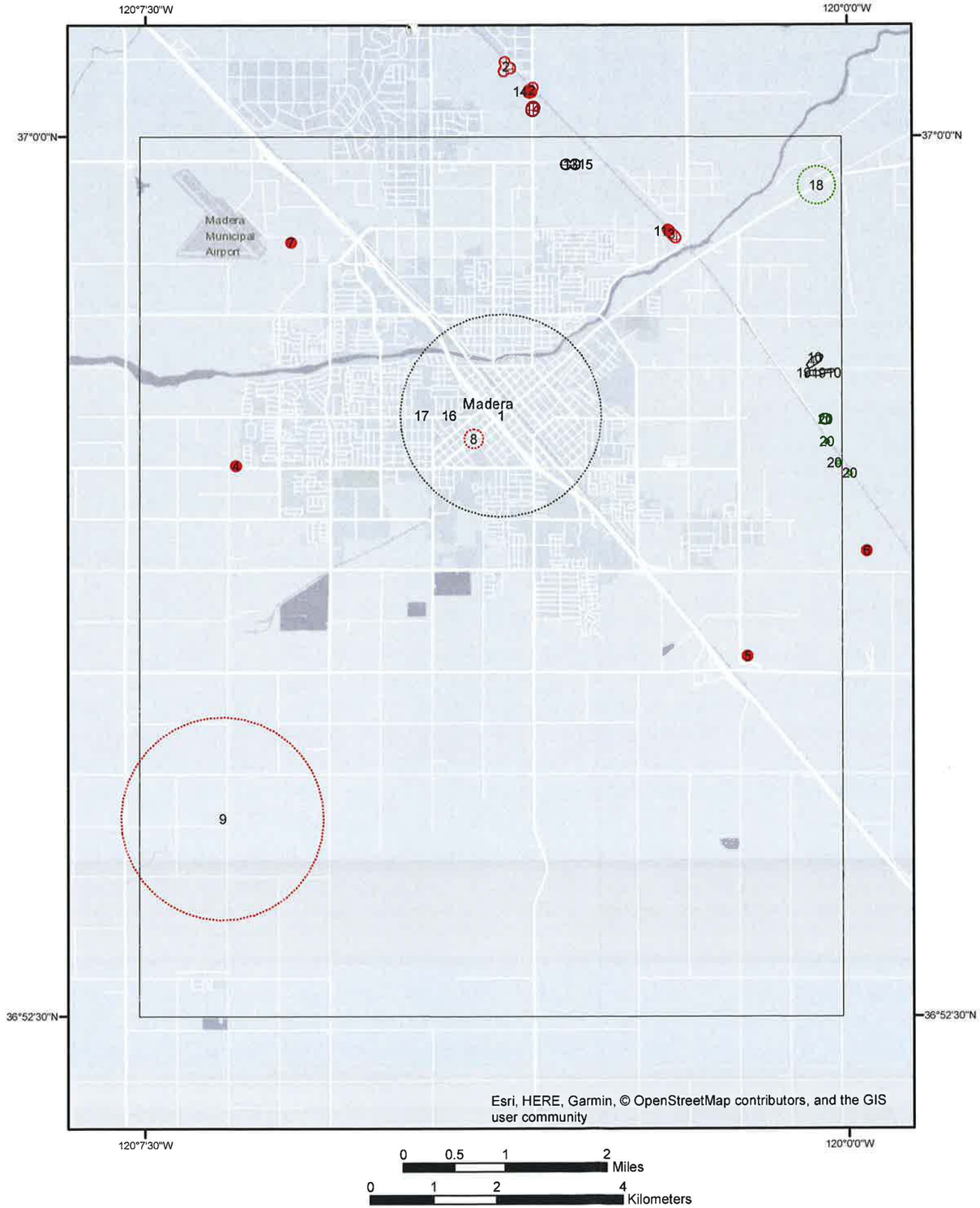
DISCLAIMER

The California Natural Diversity Database (CNDDB) is an ongoing and continuously updated database. While the information is complete and accurate to the best of our knowledge and ability, it does not constitute an official response from any state agency and will not in itself meet the requirements of the California Environmental Quality Act (CEQA). Information supplied is based on the material available at the time of the request and should not be regarded as complete data on the elements or areas being considered. The information must be used in consultation with the appropriate local, State and Federal officials. Absence of data does not constitute the basis for a negative declaration.



California Natural Diversity Database

USGS Quadrangle: MADERA - 36120H1



Prepared for: Wood Rodgers, Inc.
12/24/2018

Total Number of Element Occurrences shown on this map: 20

Ref	ElmCode	Occ #	Accuracy	Scientific Name
1	AAAAA01180	616	9	Ambystoma californiense
2	AAAAA01180	1250	2	Ambystoma californiense
3	AAAAA01180	1259	2	Ambystoma californiense
4	ABNKC19070	2691	1	Buteo swainsoni
5	ABNKC19070	2696	1	Buteo swainsoni
6	ABNKC19070	2697	1	Buteo swainsoni
7	ABNSB10010	757	1	Athene cunicularia
8	AMACC05030	64	4	Lasiurus cinereus
9	ARACF07010	107	9	Gambelia sila
10	CTT44110CA	129	2	Northern Hardpan Vernal Pool
11	ICBRA03030	902	1	Branchinecta lynchi
12	ICBRA03030	907	1	Branchinecta lynchi
13	ICBRA03030	909	2	Branchinecta lynchi
14	ICBRA03150	136	2	Branchinecta mesovallensis
15	ICBRA03150	137	2	Branchinecta mesovallensis
16	IICOL4C030	6	9	Lytta molesta
17	PDPLM09130	10	9	Leptosiphon serrulatus
18	PMPOA4G040	15	5	Orcuttia pilosa
19	PMPOA4G040	19	2	Orcuttia pilosa
20	PMPOA4G040	49	2	Orcuttia pilosa

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Madera (3612081))

WOOD RODGERS, INC.

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Ambystoma californiense (1) California tiger salamander	G2G3 S2S3	Threatened Threatened	CDFW_WL-Watch List IUCN_VU-Vulnerable	270 292	1181 S:2	0	0	0	1	1	0	1	1	1	0	1
Athene cunicularia burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	255 255	1974 S:1	0	0	0	0	1	0	0	1	0	1	0
Branchinecta lynchi vernal pool fairy shrimp	G3 S3	Threatened None	IUCN_VU-Vulnerable	292 294	766 S:2	0	0	1	1	0	0	0	2	2	0	0
Branchinecta mesovallensis midvalley fairy shrimp	G2 S2S3	None None		294 294	128 S:1	0	0	1	0	0	0	0	1	1	0	0
Buteo swainsoni Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	250 273	2467 S:2	0	0	1	0	0	1	0	2	2	0	0
Gambelia sila blunt-nosed leopard lizard	G1 S1	Endangered Endangered	CDFW_FP-Fully Protected IUCN_EN-Endangered	232 232	328 S:1	0	0	0	0	0	1	1	0	1	0	0
Lasiurus cinereus 6 hoary bat	G5 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority	270 270	238 S:1	0	0	0	0	0	1	1	0	1	0	0
Leptosiphon serrulatus 17 Madera leptosiphon	G3 S3	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	270 270	27 S:1	0	0	0	0	0	1	1	0	1	0	0
Lytta molesta 16 molestan blister beetle	G2 S2	None None		270 270	17 S:1	0	0	0	0	0	1	1	0	0	1	0
Northern Hardpan Vernal Pool Northern Hardpan Vernal Pool	G3 S3.1	None None		290 290	126 S:1	0	0	1	0	0	0	1	0	1	0	0
Orcuttia pilosa hairy Orcutt grass	G1 S1	Endangered Endangered	Rare Plant Rank - 1B.1	290 360	34 S:3	0	1	0	0	2	0	2	1	1	1	1

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Madera (3612081))

WOOD RODGERS, INC.

Map Index Number:	30806	**EO Index:**	46463
Key Quad:	Madera (3612081)	**Element Code:**	AAAAA01180
Occurrence Number:	616	**Occurrence Last Updated:**	2001-11-09

Scientific Name: *Ambystoma californiense*

Common Name: California tiger salamander

Listing Status: **Federal:** Threatened
State: Threatened

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G2G3
State: S2S3

General Habitat:

CENTRAL VALLEY DPS FEDERALLY LISTED AS THREATENED. SANTA BARBARA AND SONOMA COUNTIES DPS FEDERALLY LISTED AS ENDANGERED.

Micro Habitat:

NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	1944-12-XX	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	1944-12-XX	**Occurrence Rank:**	None
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Extirpated		

Location:

MADERA. NO OTHER LOCATION INFORMATION GIVEN.

Detailed Location:

Ecological:

Threats:

General:

MVZ #42705 COLLECTED DEC 1944 BY A. HAWBECKER. JENNINGS CONSIDERS THIS LOCATION EXTIRPATED.

PLSS:	T11S, R17E, Sec. 24 (M)	**Accuracy:**	1 mile	**Area (acres):**	0
UTM:	Zone-10 N4094507 E761603	**Latitude/Longitude:**	36.96034 / -120.06173	**Elevation (feet):**	270

County Summary:	**Quad Summary:**
Madera	Madera (3612081)

Sources:

JEN01U0001	JENNINGS, M. (RANA RESOURCES) - LOCALITY RECORDS FOR AMBYSTOMA CALIFORNIENSE IN CALIFORNIA 1992 JENNINGS & HAYES SPECIAL CONCERN HERP DATABASE WITH LOCATIONS MARKED AS PRESENT OR EXTIRPATED. 2001-11-07
MVZ01S0013	MVZ SPECIMEN DATABASE QUERY (UNIVERSITY OF CALIFORNIA, BERKELEY) - MVZ SPECIMENS FOR AMBYSTOMA CALIFORNIENSE COLLECTED BETWEEN 1912-1990 2001-08-17

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A7971	**EO Index:**	109759
Key Quad:	Madera (3612081)	**Element Code:**	AAAAA01180
Occurrence Number:	1259	**Occurrence Last Updated:**	2018-01-04

Scientific Name: *Ambystoma californiense*

Common Name: California tiger salamander

Listing Status: **Federal:** Threatened
State: Threatened

Rare Plant Rank:

Other Lists: CDFW_WL-Watch List
IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G2G3
State: S2S3

General Habitat:

CENTRAL VALLEY DPS FEDERALLY LISTED AS THREATENED. SANTA BARBARA AND SONOMA COUNTIES DPS FEDERALLY LISTED AS ENDANGERED.

Micro Habitat:

NEED UNDERGROUND REFUGES, ESPECIALLY GROUND SQUIRREL BURROWS, AND VERNAL POOLS OR OTHER SEASONAL WATER SOURCES FOR BREEDING.

Last Date Observed:	2017-04-10	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-04-10	**Occurrence Rank:**	Poor
Owner/Manager:	PVT-BNSF RAILROAD	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

RAILROAD RIGHT OF WAY FROM ABOUT 0.1-0.2 MI NW OF THE RAYMOND RD CROSSING, 1.0 MI NE OF HWY 145 AT STOREY RD IN MADERA.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

PONDED AREAS ADJACENT TO DIRT ROADS AND RAILROAD TRACKS, IN HEAVILY DISTURBED GRASSLAND.

Threats:

FIRST POND OBSERVED DEEMED LIKELY TO DRY BEFORE METAMORPHOSIS.

General:

100S OF LARVAE OBSERVED IN PONDED AREA ALONG DIRT ROAD ON 29 MAR 2017. 100S MORE WELL-DEVELOPED LARVAE OBSERVED IN ADDITIONAL POOLS ON 10 APR 2017.

PLSS:	T11S, R18E, Sec. 8, SW (M)	**Accuracy:**	specific area	**Area (acres):**	12
UTM:	Zone-10 N4097457 E764221	**Latitude/Longitude:**	36.98616 / -120.03133	**Elevation (feet):**	292

County Summary:	**Quad Summary:**
Madera	Madera (3612081)

Sources:

BAY17F0002	BAYNE, K. ET AL. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2017-03-29
BAY17F0003	BAYNE, K. - FIELD SURVEY FORM FOR AMBYSTOMA CALIFORNIENSE 2017-04-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A2000	**EO Index:**	103593
Key Quad:	Madera (3612081)	**Element Code:**	ABNKC19070
Occurrence Number:	2691	**Occurrence Last Updated:**	2016-09-28

Scientific Name: *Buteo swainsoni* **Common Name:** Swainson's hawk

Listing Status: **Federal:** None **Rare Plant Rank:**

State: Threatened **Other Lists:** BLM_S-Sensitive
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5

State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed:	2016-04-16	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-04-16	**Occurrence Rank:**	Fair
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH SIDE OF AVE 14, ABOUT 0.1 MILES NE OF ITS INTERSECTION WITH RD 24 IN MADERA.

Detailed Location:

MAPPED TO SYCAMORE/PLANE TREE IN FRONT YARD OF RESIDENCE, VISIBLE IN AIR PHOTOS AND GOOGLE STREET VIEW (COORDINATES GIVEN ARE CLOSE BUT NOT EXACT).

Ecological:

NEST IN SYCAMORE/PLANE TREE IN FRONT YARD OF RESIDENCE (NEST TREE SPECIES DETERMINED FROM PROVIDED PHOTO). DISTURBANCE FROM ADJACENT BUSY ROAD AND RESIDENCES.

Threats:

General:

1 ADULT OBSERVED CIRCLING NEST TREE AND SITTING ON NEST ON 16 APR 2016.

PLSS:	T11S, R17E, Sec. 22, SW (M)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-10 N4093583 E757427	**Latitude/Longitude:**	36.95316 / -120.10889	**Elevation (feet):**	250

County Summary:	**Quad Summary:**
Madera	Madera (3612081)

Sources:

FOL16F0001 FOLSOM, G. - FIELD SURVEY FORM FOR BUTEO SWAINSONI 2016-04-06

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A2418	**EO Index:**	104028
Key Quad:	Madera (3612081)	**Element Code:**	ABNKC19070
Occurrence Number:	2696	**Occurrence Last Updated:**	2016-10-31

Scientific Name: *Buteo swainsoni* **Common Name:** Swainson's hawk

Listing Status: **Federal:** None **Rare Plant Rank:**

State: Threatened **Other Lists:** BLM_S-Sensitive
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

CNDDB Element Ranks: **Global:** G5

State: S3

General Habitat:

BREEDS IN GRASSLANDS WITH SCATTERED TREES, JUNIPER-SAGE FLATS, RIPARIAN AREAS, SAVANNAHS, & AGRICULTURAL OR RANCH LANDS WITH GROVES OR LINES OF TREES.

Micro Habitat:

REQUIRES ADJACENT SUITABLE FORAGING AREAS SUCH AS GRASSLANDS, OR ALFALFA OR GRAIN FIELDS SUPPORTING RODENT POPULATIONS.

Last Date Observed:	2016-07-12	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-07-12	**Occurrence Rank:**	Unknown
Owner/Manager:	UNKNOWN	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

NORTH SIDE OF COTTONWOOD CREEK ABOUT 0.25 MILES NW OF HWY 99 AT AVE 12, 3 MILES SE OF MADERA.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

NEST IN COTTONWOOD IN RIPARIAN AREA BETWEEN CANAL AND COTTONWOOD CREEK. AREA NORTH OF CANAL WAS INDUSTRIAL; SURROUNDING AREA AGRICULTURAL.

Threats:

General:

ACTIVE NEST MONITORED THROUGH 2016 SEASON; BY 12 JUL, 3 YOUNG HAD FLEDGED.

PLSS:	T11S, R18E, Sec. 33, SW (M)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-10 N4090828 E765622	**Latitude/Longitude:**	36.92609 / -120.01794	**Elevation (feet):**	273

County Summary:	**Quad Summary:**
Madera	Madera (3612081)

Sources:

BAT16F0001 BATES, K. - FIELD SURVEY FORM FOR BUTEO SWAINSONI 2016-07-12

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 62822
EO Index: 62876
Key Quad: Madera (3612081)
Element Code: ABNSB10010
Occurrence Number: 757
Occurrence Last Updated: 2005-10-17

Scientific Name: *Athene cunicularia*
Common Name: burrowing owl

Listing Status: **Federal:** None
State: None

Rare Plant Rank:

CNDDB Element Ranks: **Global:** G4
State: S3

Other Lists: BLM_S-Sensitive
CDFW_SSC-Species of Special Concern
IUCN_LC-Least Concern
USFWS_BCC-Birds of Conservation Concern

General Habitat:

OPEN, DRY ANNUAL OR PERENNIAL GRASSLANDS, DESERTS, AND SCRUBLANDS CHARACTERIZED BY LOW-GROWING VEGETATION.

Micro Habitat:

SUBTERRANEAN NESTER, DEPENDENT UPON BURROWING MAMMALS, MOST NOTABLY, THE CALIFORNIA GROUND SQUIRREL.

Last Date Observed: 2005-02-24
Occurrence Type: Natural/Native occurrence
Last Survey Date: 2005-02-24
Occurrence Rank: None
Owner/Manager: USBOR
Trend: Unknown
Presence: Possibly Extirpated

Location:

0.2 MILE NORTH OF AVENUE 16 AND 0.7 MILE WEST OF HIGHWAY 99, JUST EAST OF MADERA AIRPORT.

Detailed Location:

Ecological:

HABITAT CONSISTED OF RUDERAL/NON-NATIVE GRASSLAND ON A WEST-FACING SLOPE. SURROUNDED BY A PONDING BASIN AND AGRICULTURE.

Threats:

BURROW DESTROYED BY PONDING BASIN ENLARGEMENT.

General:

AFTER THE OWL HAD LEFT THE BURROW, AND IT WAS DETERMINED THAT THERE WERE NO EGGS OR YOUNG INSIDE, THE SITE WAS GRADED TO ENLARGE THE PONDING BASIN.

PLSS: T11S, R17E, Sec. 10, SE (M)
Accuracy: 80 meters
Area (acres): 0
UTM: Zone-10 N4097134 E758193
Latitude/Longitude: 36.98492 / -120.09909
Elevation (feet): 255

County Summary:	Quad Summary:
Madera	Madera (3612081)

Sources:

PEA05F0001 PEARSON, A.J. - FIELD SURVEY FORM FOR ATHENE CUNICULARIA (BURROW SITE) 2005-02-24

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 68509
Key Quad: Madera (3612081)
Occurrence Number: 64

EO Index: 68823
Element Code: AMACC05030
Occurrence Last Updated: 2007-03-16

Scientific Name: *Lasiurus cinereus*
Common Name: hoary bat

Listing Status: **Federal:** None
State: None

Rare Plant Rank:

Other Lists: IUCN_LC-Least Concern
WBWG_M-Medium Priority

CNDDB Element Ranks: **Global:** G5
State: S4

General Habitat:

PREFERS OPEN HABITATS OR HABITAT MOSAICS, WITH ACCESS TO TREES FOR COVER AND OPEN AREAS OR HABITAT EDGES FOR FEEDING.

Micro Habitat:

ROOSTS IN DENSE FOLIAGE OF MEDIUM TO LARGE TREES. FEEDS PRIMARILY ON MOTHS. REQUIRES WATER.

Last Date Observed: 1944-02-25
Last Survey Date: 1944-02-25
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

MADERA, AT L AND YOSEMITE AVE.

Detailed Location:

MAPPED ACCORDING TO LOCALITY GIVEN BY MANIS.

Ecological:

Threats:

General:

1 MALE SPECIMEN (MVZ #109120) COLLECTED BY ALBERT C. HAWBECKER JR. ON 26 FEB 1944.

PLSS: T11S, R17E, Sec. 24, SW (M)
UTM: Zone-10 N4094125 E761175

Accuracy: 1/10 mile
Latitude/Longitude: 36.95701 / -120.06666

Area (acres): 0
Elevation (feet): 270

County Summary:	Quad Summary:
Madera	Madera (3612081)

Sources:

MAN04S0029 MAMMAL NETWORKED INFORMATION SYSTEM (MANIS) - PRINTOUT OF LASIURUS CINEREUS SPECIMENS FOR CALIFORNIA FROM MANIS. INCLUDES RECORDS FROM MVZ, CAS, MSB, LSU, KU, LACM, UWBM, FMNH AND TTU. 2004-12-10

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 14160
Key Quad: Madera (3612081)
Occurrence Number: 107

EO Index: 27810
Element Code: ARACF07010
Occurrence Last Updated: 1989-08-10

Scientific Name: *Gambelia sila*
Common Name: blunt-nosed leopard lizard

Listing Status: **Federal:** Endangered
State: Endangered

Rare Plant Rank:

Other Lists: CDFW_FP-Fully Protected
IUCN_EN-Endangered

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:

RESIDENT OF SPARSELY VEGETATED ALKALI AND DESERT SCRUB HABITATS, IN AREAS OF LOW TOPOGRAPHIC RELIEF.

Micro Habitat:

SEEKS COVER IN MAMMAL BURROWS, UNDER SHRUBS OR STRUCTURES SUCH AS FENCE POSTS; THEY DO NOT EXCAVATE THEIR OWN BURROWS.

Last Date Observed: 1916-06-XX
Last Survey Date: 1916-06-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant

Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:

5 MI SW MADERA.

Detailed Location:

Ecological:

Threats:

General:

CAS SPECIMEN.

PLSS: T12S, R17E, Sec. 09, NE (M)
UTM: Zone-10 N4088008 E757384

Accuracy: 1 mile
Latitude/Longitude: 36.90299 / -120.11127

Area (acres): 0
Elevation (feet): 232

County Summary:

Madera

Quad Summary:

Madera (3612081), Bonita Ranch (3612082)

Sources:

BRO74R0001 BRODE, J.M. & D.C. STROUF (CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE) - LOCALITIES FOR THE BLUNT-NOSED LEOPARD LIZARD. A LIST OF MUSEUM AND OBSERVATIONS PREPARED BY INLAND FISHERIES BRANCH, CA DEPT. OF FISH AND GAME 1974-XX-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 14334
EO Index: 26027
Key Quad: Madera (3612081)
Element Code: CTT44110CA
Occurrence Number: 129
Occurrence Last Updated: 1998-07-15

Scientific Name: *Northern Hardpan Vernal Pool*
Common Name: Northern Hardpan Vernal Pool

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G3
State: S3.1

General Habitat:

□

Micro Habitat:

□

Last Date Observed: 1986-05-21
Last Survey Date: 1986-05-21
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Decreasing

Location:

ON NORTH AND SOUTH SIDES OF AVENUE 15, 1/2 MILE EAST OF TOPEKA AND SANTA FE RAILWAY.

Detailed Location:

Ecological:

REMNANT VERNAL POOLS IN VALLEY GRASSLAND. POOLS ON SOUTH SIDE OF ROAD ARE IN DISKED WHEAT FIELD. ORCUTTIA PILOSA, PHALARIS, ERYNGIUM, LYTHRUM, AND PSILOCARPHUS. UNABLE TO CONVERT TO FLORISTIC CLASSIFICATION, LACKS SPP. INFO.

Threats:

AGRICULTURE / DISKING IS LARGEST THREAT.

General:

FEWER ORCUTTIA PLANTS IN '86 THAN IN '83. HYDROLOGY OF POOL PROBABLY ALTERED BY DISKING. SEE WWW.DFG.CA.GOV/BIOGEODATA/VEGCAMP/NATURAL_COMM_BACKGROUND.ASP TO INTERPRET AND ADDRESS THE PRESENCE OF RARE COMMUNITIES.

PLSS: T11S, R18E, Sec. 16, SE (M)
Accuracy: specific area
Area (acres): 15
UTM: Zone-10 N4095505 E766555
Latitude/Longitude: 36.96793 / -120.00583
Elevation (feet): 290

County Summary:	Quad Summary:
Madera	Madera (3612081)

Sources:

STE86F0036 STEBBINS, J. - FIELD SURVEY FORM FOR ORCUTTIA PILOSA & VERNAL POOL 1986-05-21

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A2132	**EO Index:**	103727
Key Quad:	Madera (3612081)	**Element Code:**	ICBRA03030
Occurrence Number:	902	**Occurrence Last Updated:**	2016-10-13

Scientific Name: *Branchinecta lynchi* **Common Name:** vernal pool fairy shrimp

Listing Status: **Federal:** Threatened **Rare Plant Rank:**

State: None **Other Lists:** IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

ENDEMIC TO THE GRASSLANDS OF THE CENTRAL VALLEY, CENTRAL COAST MOUNTAINS, AND SOUTH COAST MOUNTAINS, IN ASTATIC RAIN-FILLED POOLS.

Micro Habitat:

INHABIT SMALL, CLEAR-WATER SANDSTONE-DEPRESSION POOLS AND GRASSED SWALE, EARTH SLUMP, OR BASALT-FLOW DEPRESSION POOLS.

Last Date Observed:	2016-02-11	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2016-02-11	**Occurrence Rank:**	Poor
Owner/Manager:	STATE-HS RAIL	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG RAILROAD TRACK, ABOUT 0.2 MILES W OF ELLIS ST AT RD 28 1/2 & 1.1 MILES NE OF HWY 145 AT TOZER ST, MADERA.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

SEASONAL POOL/DIRT ROADSIDE PUDDLE ADJACENT TO RAILROAD RIGHT-OF-WAY IN RURAL RESIDENTIAL AREA. WITHIN PLANNED HIGH SPEED RAIL ALIGNMENT, SITE IS PERMITTED BUT HAS NOT BEEN DISTURBED YET (2016).

Threats:

HIGH SPEED RAIL CONSTRUCTION.

General:

THOUSANDS OBSERVED, DOZENS OF ADULTS COLLECTED AND POSITIVELY IDENTIFIED ON 27 JAN, 5 FEB & 11 FEB 2016.

PLSS:	T11S, R18E, Sec. 8, SW (M)	**Accuracy:**	80 meters	**Area (acres):**	5
UTM:	Zone-10 N4097499 E764182	**Latitude/Longitude:**	36.98655 / -120.03176	**Elevation (feet):**	292

County Summary:	**Quad Summary:**
Madera	Madera (3612081)

Sources:

NEW16F0001 NEWMAN, D. - FIELD SURVEY FORM FOR BRANCHINECTA LYNCHI 2016-02-11

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	A6634	**EO Index:**	108404
Key Quad:	Madera (3612081)	**Element Code:**	ICBRA03030
Occurrence Number:	909	**Occurrence Last Updated:**	2017-10-18

Scientific Name: *Branchinecta lynchi* **Common Name:** vernal pool fairy shrimp

Listing Status: **Federal:** Threatened **Rare Plant Rank:**

State: None **Other Lists:** IUCN_VU-Vulnerable

CNDDB Element Ranks: **Global:** G3

State: S3

General Habitat:

ENDEMIC TO THE GRASSLANDS OF THE CENTRAL VALLEY, CENTRAL COAST MOUNTAINS, AND SOUTH COAST MOUNTAINS, IN ASTATIC RAIN-FILLED POOLS.

Micro Habitat:

INHABIT SMALL, CLEAR-WATER SANDSTONE-DEPRESSION POOLS AND GRASSED SWALE, EARTH SLUMP, OR BASALT-FLOW DEPRESSION POOLS.

Last Date Observed:	2017-02-26	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-02-26	**Occurrence Rank:**	Fair
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

SOUTH SIDE OF AVENUE 17 ABOUT 0.3 TO 0.4 MILES EAST OF N LAKE ST, N OF MADERA.

Detailed Location:

MAPPED TO PROVIDED COORDINATES.

Ecological:

TWO BASINS BETWEEN ROWS OF AN INACTIVE VINEYARD IN AGRICULTURAL AREA. RAILROAD TRACKS NEARBY; HIGH SPEED RAIL PROJECT MAY IMPACT AREA. B. MESOVALLENSIS ALSO FOUND.

Threats:

DEVELOPMENT, CONSTRUCTION ACTIVITIES, OR REACTIVATION OF VINEYARD.

General:

1 ADULT OBSERVED IN E POOL, 1 IN W POOL ON 26 FEB 2017. 100S-1000S OF NAUPLII PRESENT, UNKNOWN WHAT PERCENT WERE B. LYNCHI VS. B. MESOVALLENSIS.

PLSS:	T11S, R18E, Sec. 7, NW (M)	**Accuracy:**	specific area	**Area (acres):**	10
UTM:	Zone-10 N4098506 E762589	**Latitude/Longitude:**	36.99606 / -120.04928	**Elevation (feet):**	294

County Summary:	**Quad Summary:**
Madera	Madera (3612081)

Sources:

STO17F0004	STOLPE, R. ET AL. - FIELD SURVEY FORM FOR BRANCHINECTA LYNCHI 2017-02-26
STO17F0005	STOLPE, R. ET AL. - FIELD SURVEY FORM FOR BRANCHINECTA LYNCHI 2017-02-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: A6634
Key Quad: Madera (3612081)
Occurrence Number: 137
EO Index: 108403
Element Code: ICBRA03150
Occurrence Last Updated: 2017-10-02

Scientific Name: *Branchinecta mesovallensis*
Common Name: midvalley fairy shrimp

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2S3

General Habitat:
VERNAL POOLS IN THE CENTRAL VALLEY.

Micro Habitat:
□

Last Date Observed: 2017-02-26
Last Survey Date: 2017-02-26
Owner/Manager: PVT
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Fair
Trend: Unknown

Location:
SOUTH SIDE OF AVENUE 17 ABOUT 0.3 TO 0.4 MILES EAST OF N LAKE ST, N OF MADERA.

Detailed Location:
MAPPED TO PROVIDED COORDINATES.

Ecological:
TWO BASINS BETWEEN ROWS OF AN INACTIVE VINEYARD IN AGRICULTURAL AREA. RAILROAD TRACKS NEARBY; HIGH SPEED RAIL PROJECT MAY IMPACT AREA. B. LYNCHI ALSO FOUND.

Threats:
DEVELOPMENT, CONSTRUCTION ACTIVITIES, OR REACTIVATION OF VINEYARD.

General:
7 ADULTS OBSERVED IN W POOL, 3 IN E POOL ON 26 FEB 2017. 100S-1000S OF NAUPLII PRESENT, UNKNOWN WHAT PERCENT WERE B. LYNCHI VS. B. MESOVALLENSIS.

PLSS: T11S, R18E, Sec. 7, NW (M)
Accuracy: specific area
Area (acres): 10
UTM: Zone-10 N4098506 E762589
Latitude/Longitude: 36.99606 / -120.04928
Elevation (feet): 294

County Summary:	Quad Summary:
Madera	Madera (3612081)

Sources:

STO17F0006	STOLPE, R. ET AL. - FIELD SURVEY FORM FOR BRANCHINECTA MESOVALLENSIS 2017-02-26
STO17F0007	STOLPE, R. ET AL. - FIELD SURVEY FORM FOR BRANCHINECTA MESOVALLENSIS 2017-02-26

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 30806
Key Quad: Madera (3612081)
Occurrence Number: 6
EO Index: 64457
Element Code: IICOL4C030
Occurrence Last Updated: 2006-03-30

Scientific Name: *Lytta molesta*
Common Name: molestan blister beetle

Listing Status: **Federal:** None
State: None
Rare Plant Rank:
Other Lists:

CNDDB Element Ranks: **Global:** G2
State: S2

General Habitat:
INHABITS THE CENTRAL VALLEY OF CALIFORNIA, FROM CONTRA COSTA TO KERN AND TULARE COUNTIES.

Micro Habitat:
□

Last Date Observed: 19XX-XX-XX
Last Survey Date: 19XX-XX-XX
Owner/Manager: UNKNOWN
Presence: Possibly Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
MADERA.

Detailed Location:

Ecological:

Threats:

General:
LOCALITY FROM CALIFORNIA BEETLE PROJECT ONLINE DATABASE; COLLECTION INFORMATION NOT GIVEN. HISTORICAL RECORD; EXACT LOCATION UNKNOWN.

PLSS: T11S, R17E, Sec. 24 (M)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-10 N4094507 E761603
Latitude/Longitude: 36.96034 / -120.06173
Elevation (feet): 270

County Summary:	Quad Summary:
Madera	Madera (3612081)

Sources:

CBP06U0001 CALIFORNIA BEETLE PROJECT (SBMNH) - ONLINE DATABASE RECORDS FOR LYTTA MOESTA. 2006-03-27

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 30806
Key Quad: Madera (3612081)
Occurrence Number: 10
EO Index: 20975
Element Code: PDPLM09130
Occurrence Last Updated: 2009-04-16

Scientific Name: *Leptosiphon serrulatus*
Common Name: Madera leptosiphon

Listing Status: **Federal:** None
State: None
Rare Plant Rank: 1B.2
Other Lists: USFS_S-Sensitive

CNDDB Element Ranks: **Global:** G3
State: S3

General Habitat:
CISMONTANE WOODLAND, LOWER MONTANE CONIFEROUS FOREST.

Micro Habitat:
DRY SLOPES; OFTEN ON DECOMPOSED GRANITE IN WOODLAND. 300-1300 M.

Last Date Observed: 1889-05-XX
Last Survey Date: 1889-05-XX
Owner/Manager: UNKNOWN
Presence: Presumed Extant
Occurrence Type: Natural/Native occurrence
Occurrence Rank: Unknown
Trend: Unknown

Location:
NEAR MADERA.

Detailed Location:
MAPPED AT CNDDB IN VICINITY OF THE COMMUNITY OF MADERA.

Ecological:

Threats:

General:
ONLY SOURCE OF INFORMATION FOR THIS SITE IS AN 1889 COLLECTION BY BUCKMINSTER. NEEDS FIELDWORK.

PLSS: T11S, R17E, Sec. 24 (M)
Accuracy: 1 mile
Area (acres): 0
UTM: Zone-10 N4094507 E761603
Latitude/Longitude: 36.96034 / -120.06173
Elevation (feet): 270

County Summary:
Madera

Quad Summary:
Madera (3612081)

Sources:
BUC89S0001 BUCKMINSTER, P. - BUCKMINSTER SN UC #84340 JEPS #89130 1889-05-XX

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number: 14329
Key Quad: Madera (3612081)
Occurrence Number: 15
EO Index: 22325
Element Code: PMPOA4G040
Occurrence Last Updated: 1995-07-21

Scientific Name: *Orcuttia pilosa*
Common Name: hairy Orcutt grass

Listing Status: **Federal:** Endangered
State: Endangered
Rare Plant Rank: 1B.1
Other Lists:

CNDDB Element Ranks: **Global:** G1
State: S1

General Habitat:
VERNAL POOLS.

Micro Habitat:
25-125 M.

Last Date Observed: 1941-05-31
Last Survey Date: 1987-06-02
Owner/Manager: PVT
Presence: Extirpated
Occurrence Type: Natural/Native occurrence
Occurrence Rank: None
Trend: Unknown

Location:
4 MILES EAST OF MADERA.

Detailed Location:
MAPPED ALONG HIGHWAY 145. COLLECTION MADE "3 MILES OUT OF MADERA ON THE NORTHFORK ROAD" ARE ALSO ATTRIBUTED TO THIS SITE. AREA NEAR HIGHWAY 145 AND ROADS 300 AND 400 SEARCHED IN 1981.

Ecological:

Threats:
DEVELOPMENT, SMALL HORSE PASTURES, ORCHARDS, ROADS, ETC.

General:
AREA SEARCHED IN 1981 & 1987 BUT NO SUITABLE HABITAT REMAINS; SITE EXTIRPATED. INCLUDES FORMER OCCURRENCE #14.

PLSS: T11S, R18E, Sec. 09, NE (M)
Accuracy: 1/5 mile
Area (acres): 0
UTM: Zone-10 N4098288 E766503
Latitude/Longitude: 36.99300 / -120.00543
Elevation (feet): 300

County Summary:	Quad Summary:
Madera	Madera (3612081)

Sources:

BIO88R0001	BIOSYSTEMS ANALYSIS, INC. - STATUS SURVEY OF THE GRASS TRIBE ORCUTTIEAE AND CHAMAESYCE HOOVERI IN THE CENTRAL VALLEY OF CALIFORNIA 1988-09-XX
HAR81F0018	HARRISON, S. & J. FERREIRA - FIELD SURVEY FORM FOR ORCUTTIA PILOSA 1981-06-03
HOO41S0001	HOOVER, R. - HOOVER #5284 UC #766715, DS #329219, CAS-BOT-BC #254319, UTC #00079793, SEINET #196301 1941-05-31
WAG38S0001	WAGNON, K. - WAGNON SN UC 1938-07-18

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	14334	**EO Index:**	25989
Key Quad:	Madera (3612081)	**Element Code:**	PMPOA4G040
Occurrence Number:	19	**Occurrence Last Updated:**	2013-04-24

Scientific Name: *Orcuttia pilosa* **Common Name:** hairy Orcutt grass

Listing Status: **Federal:** Endangered **Rare Plant Rank:** 1B.1

State: Endangered **Other Lists:**

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

25-125 M.

Last Date Observed:	1986-05-21	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2010-08-08	**Occurrence Rank:**	None
Owner/Manager:	PVT	**Trend:**	Decreasing
Presence:	Possibly Extirpated		

Location:

0.5-0.9 MILE EAST OF SANTA FE RAILROAD TRACKS, ON BOTH SIDES OF AVENUE 15, EAST OF MADERA.

Detailed Location:

POOLS ON THE SOUTH SIDE OF AVENUE 15 ARE IN BARLEY. MAPPED WITHIN THE SE 1/4 OF THE SE 1/4 OF SECTION 16 AND THE N 1/4 OF THE NE 1/4 OF SECTION 21.

Ecological:

REMNANT VERNAL POOLS ON CLAY SOIL, WITHIN REMNANT GRASSLAND. ASSOCIATED WITH DOWNINGIA, PHALARIS PARADOXA, ERYNGIUM VASEYI, LYTHRUM HYSSOPIFOLIA, AND PSILOCARPHUS BREVISSUMUS.

Threats:

2010: N SIDE OF ROAD IS ORCHARD; POOLS AVOIDED, BUT VERY WEEDY. S POLY REPEATEDLY PLOWED, NO VERNAL FEATURES EVIDENT.

General:

POPULATION OF OVER 1000 PLANTS IN LESS THAN ONE HECTARE IN 1982. 3 PLANTS OBSERVED IN 1986. SITE QUALITY MARGINAL IN 1983 AND 1986. NO PLANTS FOUND IN 2010.

PLSS:	T11S, R18E, Sec. 16, SE (M)	**Accuracy:**	specific area	**Area (acres):**	15
UTM:	Zone-10 N4095505 E766555	**Latitude/Longitude:**	36.96793 / -120.00583	**Elevation (feet):**	360

County Summary:	**Quad Summary:**
Madera	Madera (3612081)

Sources:

BIO88R0001	BIOSYSTEMS ANALYSIS, INC. - STATUS SURVEY OF THE GRASS TRIBE ORCUTTIEAE AND CHAMAESYCE HOOVERI IN THE CENTRAL VALLEY OF CALIFORNIA 1988-09-XX
STE82F0002	STEBBINS, J. - FIELD SURVEY FORM FOR ORCUTTIA PILOSA 1982-06-07
STE82S0001	STEBBINS, J.C. - STEBBINS #82255 JEPS #81203, UC #1266959, CHSC #37334, MO #2600138, SEINET #10592188 1982-06-07
STE83U0003	STEBBINS, J. - ELEMENT OCCURRENCE EVALUATION FORM FOR ORCUTTIA PILOSA 1983-06-16
STE86F0007	STEBBINS, J. - FIELD SURVEY FORM FOR ORCUTTIA PILOSA 1986-05-21
WIT13R0001	WITHAM, C. - STATUS SURVEYS FOR SEVEN FEDERALLY LISTED VERNAL POOL GRASSES AND CHAMAESYCE HOOVERI IN THE SACRAMENTO AND SAN JOAQUIN VALLEYS (GREAT VALLEY), CALIFORNIA, USA 2013-03-25

Occurrence Report

California Department of Fish and Wildlife

California Natural Diversity Database

Map Index Number:	B0724	**EO Index:**	112592
Key Quad:	Madera (3612081)	**Element Code:**	PMPOA4G040
Occurrence Number:	49	**Occurrence Last Updated:**	2018-09-18

Scientific Name: *Orcuttia pilosa* **Common Name:** hairy Orcutt grass

Listing Status: **Federal:** Endangered **Rare Plant Rank:** 1B.1

State: Endangered **Other Lists:**

CNDDB Element Ranks: **Global:** G1

State: S1

General Habitat:

VERNAL POOLS.

Micro Habitat:

25-125 M.

Last Date Observed:	2017-06-20	**Occurrence Type:**	Natural/Native occurrence
Last Survey Date:	2017-06-20	**Occurrence Rank:**	Good
Owner/Manager:	PVT	**Trend:**	Unknown
Presence:	Presumed Extant		

Location:

ALONG BOTH SIDES OF BNSF RAILWAY BETWEEN AVE 15 AND COTTONWOOD CREEK, EAST OF MADERA.

Detailed Location:

4 POLYGONS MAPPED ACCORDING TO 2016 HERMANSEN COORDINATES, 2016 DE GROOT COORDINATES, AND 2017 TOEWS COORDINATES, IN THE EAST 1/2 OF SECTION 21 AND THE NW 1/4 OF THE NW 1/4 OF SECTION 27.

Ecological:

DEPRESSIONAL FEATURES WITHIN CULTIVATED GRAIN FIELDS, VERNAL POOLS. ASSOCIATED WITH ELEOCHARIS MACROSTACHYA, TYPHA ANGUSTIFOLIA, DOWNINGIA BICORNUTA, SAGITTARIA LATIFOLIA, PLAGIOBOTHRYS SP., ERYNGIUM VASEYI, POLYGONUM AVICULARE, ETC.

Threats:

CULTIVATION/AGRICULTURE, MECHANICAL DAMAGE FROM DISKING, CONSTRUCTION. PORTIONS TO BE DESTROYED BY HIGH SPEED RAIL.

General:

2016: 11 PLANTS SEEN IN 2ND N-MOST POLYGON, 5 PLANTS IN 2ND S-MOST POLYGON, ~11 PLANTS IN S-MOST POLYGON. >100,000 PLANTS ESTIMATED IN N-MOST POLYGON FROM A 2017 WINDSHIELD SURVEY. 2010 WINCHELL PHOTOS ATTRIBUTED TO THIS SITE.

PLSS:	T11S, R18E, Sec. 21, E (M)	**Accuracy:**	specific area	**Area (acres):**	8
UTM:	Zone-10 N4093920 E766981	**Latitude/Longitude:**	36.95354 / -120.00161	**Elevation (feet):**	290

County Summary:	**Quad Summary:**
Madera	Gregg (3611988), Madera (3612081)

Sources:

DEG16F0006	DE GROOT, S. - FIELD SURVEY FORM FOR ORCUTTIA PILOSA 2016-09-08
DEG16F0007	DE GROOT, S. - FIELD SURVEY FORM FOR ORCUTTIA PILOSA 2016-09-08
DEG16S0006	DE GROOT, S. ET AL. - DE GROOT #8001 RSA #0118076 2016-09-08
DEG16S0007	DE GROOT, S. ET AL. - DE GROOT #8000 RSA #0118077 2016-09-08
HER16F0001	HERMANSEN, T. - FIELD SURVEY FORM FOR ORCUTTIA PILOSA 2016-05-23
HER16F0002	HERMANSEN, T. - FIELD SURVEY FORM FOR ORCUTTIA PILOSA 2016-05-23
HER16F0003	HERMANSEN, T. - FIELD SURVEY FORM FOR ORCUTTIA PILOSA 2016-05-23
TOE17F0018	TOEWS, D. - FIELD SURVEY FORM FOR ORCUTTIA PILOSA 2017-06-20
WIN10I0025	WINCHELL, C. - PHOTOS OF ORCUTTIA PILOSA, CALPHOTOS ID: 0000 0000 0910 2233, 2235-2241 2010-09-30

APPENDIX 4

Class 1 Archival Review

AB 32 Consultation Letters

Date: May 21, 2019

Dumna Wo-Wah Tribal Goverment
Robert Ledger Sr., Chairperson
2191 West Pico Ave.
Fresno ,CA 93705

Subject: Invitation to Begin Informal CEQA Tribal Consultation (AB52) for the proposed Parkwood CMD (County Maintenance District) 19 A&B Water System Improvements Project, Madera, California.

Dear Mr.Ledger,

The County of Madera (County) Maintenance District No. 19A and 19B Parkwood (MD 19) intends to improve to construct a water well within Parkwood Park, near the intersection of San Bruno Avenue and Watt Street. The well site is located on APN 047-364-011, owned by Madera County. The direct area of project effects (Direct APE) covers approximately 0.7 acres in the eastern half of the parcel

On April 26, 2019, GBCG submitted a data request to the Southern San Joaquin Valley Information Center (SSJVIC), California State University, Bakersfield under Permit #281. The record search extent covered a ½ mile radius surrounding the well parcel. No Archaeological resources occur within the project parcel. Two historic archaeological resources lie within ½ mile of the project area.

The purpose of this letter is to initiate informal consultation on the proposed Parkwood CMD (County Maintenance District) 19 A&B Water System Improvements Project, Madera, California.

The proposed project is located in Madera County, California and is confined to a ¼ acre portion of APN 047-364-011. The project area is located in Township 11 South, Range 18 East, Section 31 of the Madera, 7.5' USGS topographic quadrangle map. Attached to this letter are two (2) maps showing the project location.

The Madera County Maintenance District understands the possibility that there may be resources of concern to the Dumna Wo-Wah within the initial study area for this project. It is Madera County Maintenance District s goal to avoid cultural resources if possible, so your assistance on this matter would be most welcome.

To complete environmental studies, the Madera County Maintenance District, through its engineering consultant, Wood Rodgers, Inc, will be hiring consultants to conduct studies and perform consultation, as well as prepare required documents. Michael Drews, archaeologist with Great Basin Consulting Group, LLC, a consultant under contract with Wood Rodgers, Inc., will be contacting you to consult on this project on behalf of the Madera County Maintenance District. Specifically, what we want to know from you is:

1. Are you aware of any culturally sensitive locations at or near the project location?
2. Do you have any concerns regarding the proposed project?
3. Do you need further information on the project?
4. Are there any others you would suggest that should be consulted on this project?
5. Would the Tribe rather consult directly with the State Department of Water Resources, or is it acceptable to work with the consultant and/or the Madera County Maintenance District?

Your interest and participation are invaluable to the process. Madera County Maintenance District wants to ensure that the Tribe's concerns are treated with respect and are addressed.

If you have any questions or concerns about this project you can contact Ahmad Alkhayyat, Public Works Director, Madera County Maintenance District (aalkhayyat@madera.gov or 559-675-7811 or Michael Drews, Great Basin Group, LLC (mdrews@greatbasingroup.com or 775-560-5074).

Sincerely,

Ahmad Alkhayyat,
Public Works Director,
Madera County Maintenance District

Attached: Topographic and Project Location maps indicating project location (2 Pages)
Class I Archival Review
SSJVIC Record Search Results

Date: May 21, 2019

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717
Linden ,CA 95236

Subject: Invitation to Begin Informal CEQA Tribal Consultation (AB52) for the proposed Parkwood CMD (County Maintenance District) 19 A&B Water System Improvements Project, Madera, California.

Dear Ms. Erolinda Perez,

The County of Madera (County) Maintenance District No. 19A and 19B Parkwood (MD 19) intends to improve to construct a water well within Parkwood Park, near the intersection of San Bruno Avenue and Watt Street. The well site is located on APN 047-364-011, owned by Madera County. The direct area of project effects (Direct APE) covers approximately 0.7 acres in the eastern half of the parcel

On April 26, 2019, GBCG submitted a data request to the Southern San Joaquin Valley Information Center (SSJVIC), California State University, Bakersfield under Permit #281. The record search extent covered a ½ mile radius surrounding the well parcel. No Archaeological resources occur within the project parcel. Two historic archaeological resources lie within ½ mile of the project area.

The purpose of this letter is to initiate informal consultation on the proposed Parkwood CMD (County Maintenance District) 19 A&B Water System Improvements Project, Madera, California.

The proposed project is located in Madera County, California and is confined to a ¼ acre portion of APN 047-364-011. The project area is located in Township 11 South, Range 18 East, Section 31 of the Madera, 7.5' USGS topographic quadrangle map. Attached to this letter are two (2) maps showing the project location.

The Madera County Maintenance District understands the possibility that there may be resources of concern to the North Valley Yokuts within the initial study area for this project. It is Madera County Maintenance District s goal to avoid cultural resources if possible, so your assistance on this matter would be most welcome.

To complete environmental studies, the Madera County Maintenance District, through its engineering consultant, Wood Rodgers, Inc, will be hiring consultants to conduct studies and perform consultation, as well as prepare required documents. Michael Drews, archaeologist with Great Basin Consulting Group, LLC, a consultant under contract with Wood Rodgers, Inc., will be contacting you to consult on this project on behalf of the Madera County Maintenance District. Specifically, what we want to know from you is:

1. Are you aware of any culturally sensitive locations at or near the project location?
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If you have any questions or concerns about this project you can contact Ahmad Alkhayyat, Public Works Director, Madera County Maintenance District (aalkhayyat@madera.gov or 559-675-7811 or Michael Drews, Great Basin Group, LLC (mdrews@greatbasingroup.com or 775-560-5074).

Sincerely,

Ahmad Alkhayyat,
Public Works Director,
Madera County Maintenance District

Attached: Topographic and Project Location maps indicating project location (2 Pages)
Class I Archival Review
SSJVIC Record Search Results

Date: May 21, 2019

Southern Sierra Miwuk Nation
William Leonard, Chairperson
P.O. Box 186
Mariposa, CA 95338

Subject: Invitation to Begin Informal CEQA Tribal Consultation (AB52) for the proposed Parkwood CMD (County Maintenance District) 19 A&B Water System Improvements Project, Madera, California.

Dear Mr. Leonard,

The County of Madera (County) Maintenance District No. 19A and 19B Parkwood (MD 19) intends to improve to construct a water well within Parkwood Park, near the intersection of San Bruno Avenue and Watt Street. The well site is located on APN 047-364-011, owned by Madera County. The direct area of project effects (Direct APE) covers approximately 0.7 acres in the eastern half of the parcel

On April 26, 2019, GBCG submitted a data request to the Southern San Joaquin Valley Information Center (SSJVIC), California State University, Bakersfield under Permit #281. The record search extent covered a ½ mile radius surrounding the well parcel. No Archaeological resources occur within the project parcel. Two historic archaeological resources lie within ½ mile of the project area.

The purpose of this letter is to initiate informal consultation on the proposed Parkwood CMD (County Maintenance District) 19 A&B Water System Improvements Project, Madera, California.

The proposed project is located in Madera County, California and is confined to a ¼ acre portion of APN 047-364-011. The project area is located in Township 11 South, Range 18 East, Section 31 of the Madera, 7.5' USGS topographic quadrangle map. Attached to this letter are two (2) maps showing the project location.

The Madera County Maintenance District understands the possibility that there may be resources of concern to the Southern Sierra Miwuk Nation within the initial study area for this project. It is Madera County Maintenance District s goal to avoid cultural resources if possible, so your assistance on this matter would be most welcome.

To complete environmental studies, the Madera County Maintenance District, through its engineering consultant, Wood Rodgers, Inc, will be hiring consultants to conduct studies and perform consultation, as well as prepare required documents. Michael Drews, archaeologist with Great Basin Consulting Group, LLC, a consultant under contract with Wood Rodgers, Inc., will be contacting you to consult on this project on behalf of the Madera County Maintenance District. Specifically, what we want to know from you is:

1. Are you aware of any culturally sensitive locations at or near the project location?
2. Do you have any concerns regarding the proposed project?
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Your interest and participation are invaluable to the process. Madera County Maintenance District wants to ensure that the Tribe's concerns are treated with respect and are addressed.

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Sincerely,

Ahmad Alkhayyat,
Public Works Director,
Madera County Maintenance District

Attached: Topographic and Project Location maps indicating project location (2 Pages)
Class I Archival Review
SSJVIC Record Search Results

Date: May 21, 2019

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson William Leonard, Chairperson
1179 Rock Haven Ct.
Salinas, CA 93906

Subject: Invitation to Begin Informal CEQA Tribal Consultation (AB52) for the proposed Parkwood CMD (County Maintenance District) 19 A&B Water System Improvements Project, Madera, California.

Dear Mr. Woodrow,

The County of Madera (County) Maintenance District No. 19A and 19B Parkwood (MD 19) intends to improve to construct a water well within Parkwood Park, near the intersection of San Bruno Avenue and Watt Street. The well site is located on APN 047-364-011, owned by Madera County. The direct area of project effects (Direct APE) covers approximately 0.7 acres in the eastern half of the parcel

On April 26, 2019, GBCG submitted a data request to the Southern San Joaquin Valley Information Center (SSJVIC), California State University, Bakersfield under Permit #281. The record search extent covered a ½ mile radius surrounding the well parcel. No Archaeological resources occur within the project parcel. Two historic archaeological resources lie within ½ mile of the project area.

The purpose of this letter is to initiate informal consultation on the proposed Parkwood CMD (County Maintenance District) 19 A&B Water System Improvements Project, Madera, California.

The proposed project is located in Madera County, California and is confined to a ¼ acre portion of APN 047-364-011. The project area is located in Township 11 South, Range 18 East, Section 31 of the Madera, 7.5' USGS topographic quadrangle map. Attached to this letter are two (2) maps showing the project location.

The Madera County Maintenance District understands the possibility that there may be resources of concern to the Wuksache Indian Tribe/Eshom Valley Band within the initial study area for this project. It is Madera County Maintenance District s goal to avoid cultural resources if possible, so your assistance on this matter would be most welcome.

To complete environmental studies, the Madera County Maintenance District, through its engineering consultant, Wood Rodgers, Inc, will be hiring consultants to conduct studies and perform consultation, as well as prepare required documents. Michael Drews, archaeologist with Great Basin Consulting Group, LLC, a consultant under contract with Wood Rodgers, Inc., will be contacting you to consult on this project on behalf of the Madera County Maintenance District. Specifically, what we want to know from you is:

1. Are you aware of any culturally sensitive locations at or near the project location?
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5. Would the Tribe rather consult directly with the State Department of Water Resources, or is it acceptable to work with the consultant and/or the Madera County Maintenance District?

Your interest and participation are invaluable to the process. Madera County Maintenance District wants to ensure that the Tribe's concerns are treated with respect and are addressed.

If you have any questions or concerns about this project you can contact Ahmad Alkhayyat, Public Works Director, Madera County Maintenance District (aalkhayyat@madera.gov or 559-675-7811 or Michael Drews, Great Basin Group, LLC (mdrews@greatbasingroup.com or 775-560-5074).

Sincerely,

Ahmad Alkhayyat,
Public Works Director,
Madera County Maintenance District

Attached: Topographic and Project Location maps indicating project location (2 Pages)
Class I Archival Review
SSJVIC Record Search Results

A Class I Archival Review for the Proposed Parkwood County Maintenance District 19 A&B Water System project, Madera, California.

Prepared by

Michael Drews

Great Basin Consulting Group, LLC

Prepared For

Wood Rodgers, Inc

1361 Corporate Blvd

Reno, Nevada 89502

Madera County Public Works
200 W. 4th Street, 3rd Floor
Madera, CA 93637

May 19, 2019

Cultural Resource Management - Investigation - Monitoring
Carson City, Nevada 775.560.5074

Table of Contents

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List of Tables

Administrative Summary

Great Basin Consulting Group, LLC conducted a Class I archival review of the proposed Parkwood CMD (County Maintenance District) 19 A&B Water System project, Madera, California. in compliance with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (1966). The Proposed Project is located within Madera County, near the city limits of Madera. The proposed production well site is located within Parkwood Park, near the intersection of San Bruno Avenue and Watt Street. The well site is located on APN 047-364-011, owned by Madera County.

The direct area of project effects (Direct APE) covers approximately 0.7 acres in the eastern half of the parcel. The site is currently developed and includes and existing offline well (MD 19 Well 4) and associated structures. Several above grade and below grade improvements including concrete pads, piping and wiring are proposed.

The Class 1 Archival review indicates no previous cultural resources inventories have been conducted within the project parcel and no cultural resources have been identified within the previously developed project area. Existing site conditions and the archival review resulted in a finding of No Historic Properties Affected as defined in 36 CFR 800.4 (d)(1)).

Project Number: 2019-104 **Date of Archival Review:** April 26, 2019

Organization/Field Personnel: Michael Drews (Project Archaeologist)

County: Madera County, California **Legal Description:** Section 31, T.11S. R.18E. MDMB

Ownership: Private (APN 047-364-011) **Study Area: 0.70acres**

Map Reference: Madera, CA NV USGS 7.5 Minute Series 1978 (1982)

Introduction

Wood Rodgers, Inc. contacted with Great Basin Consulting Group, LLC (GBCG) to provide a Class I archival review to identify know cultural resources in the vicinity of the Parkwood CMD (County Maintenance District) 19 A&B Water System project, Madera, California. in compliance with the California Environmental Quality Act (CEQA) and Section 106 of the National Historic Preservation Act (1966). The Proposed Project is located within Madera County, near the city limits of Madera. The proposed production well site is located within Parkwood Park, near the intersection of San Bruno Avenue and Watt Street. The well site is located on APN 047-364-011, owned by Madera County. The direct area of project effects (Direct APE) covers approximately 0.7 acres in the eastern half of the parcel. Topography within the MD 19 is generally flat, with the ground surface sloping from northeast to southwest with approximate elevations of 270 feet above mean sea level (msl) to 260 feet msl (Figure 1 and Figure 2).

Project Description

This eastern section of the parcel contains a portion of Parkwood Park, a public park maintained by Madera County with a basketball court, a playground, sidewalks and other park related amenities. The western section of the parcel is a fenced drainage area. Residential areas surround the park on each side. An existing, offline well is located on the eastern area of the parcel. This well is offline due to excessive sand production that is intended to be remedied with this project. Most parts of this existing well will be repurposed for the new production well except for some associated piping, appurtenances and sand separator that will be demolished. Associated items to be retained from this well include a hydropneumatic tank, an electrical panel, a booster pump station, monitoring wells and a water storage tank.

Above Grade Infrastructure Design

The design includes a 5-foot square concrete well pedestal, sole plate, base plate, discharge head, pump, motor, 360 feet of column pipe, and extension of the 3-inch gravel fill tube, and 2-inch sounding tubes. The discharge head will be connected to a restrained flanged coupling adapter which connects the discharge head to the discharge piping then a 3 ft. 9-inch spool piece which has

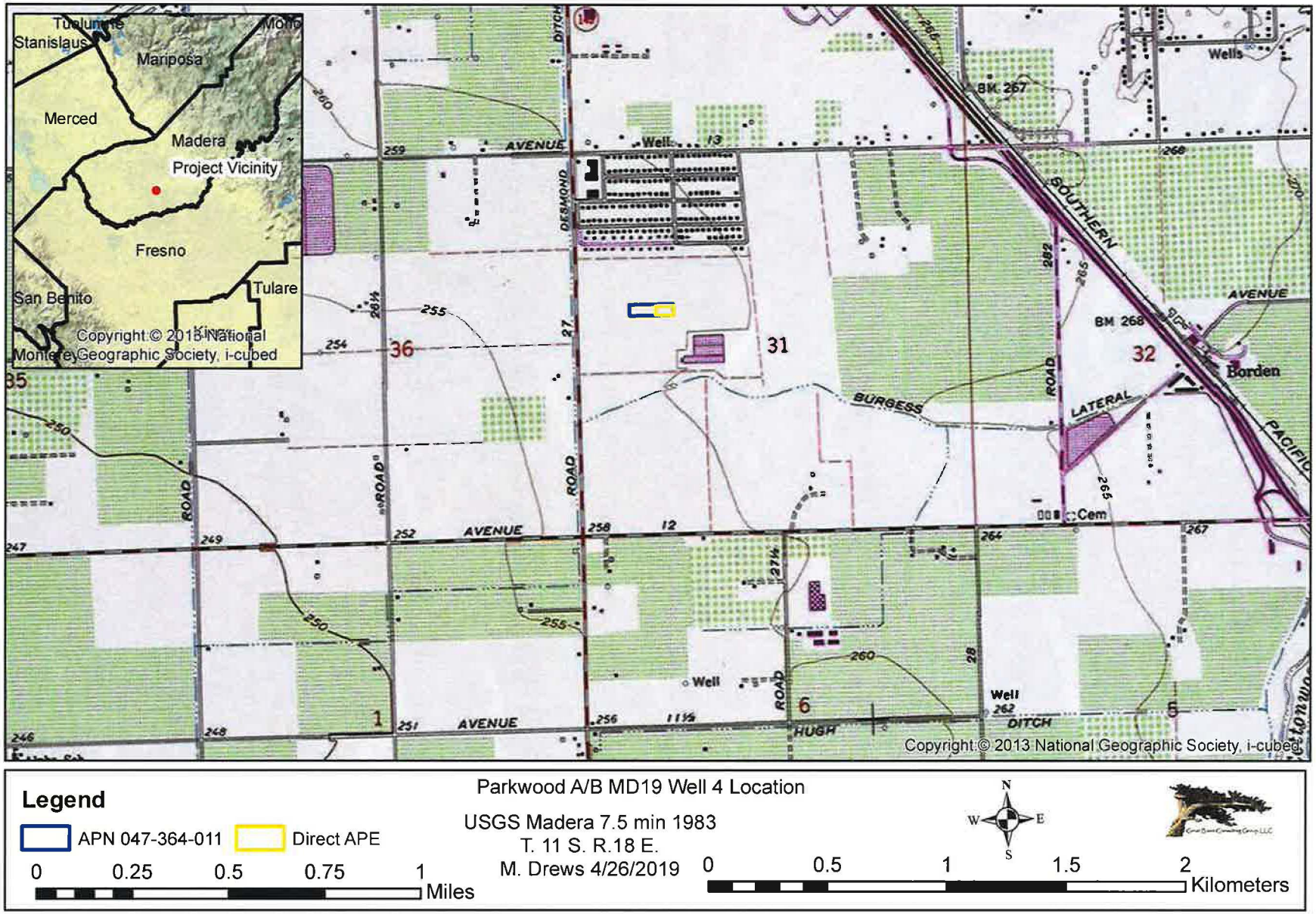

Figure 1. Project Location

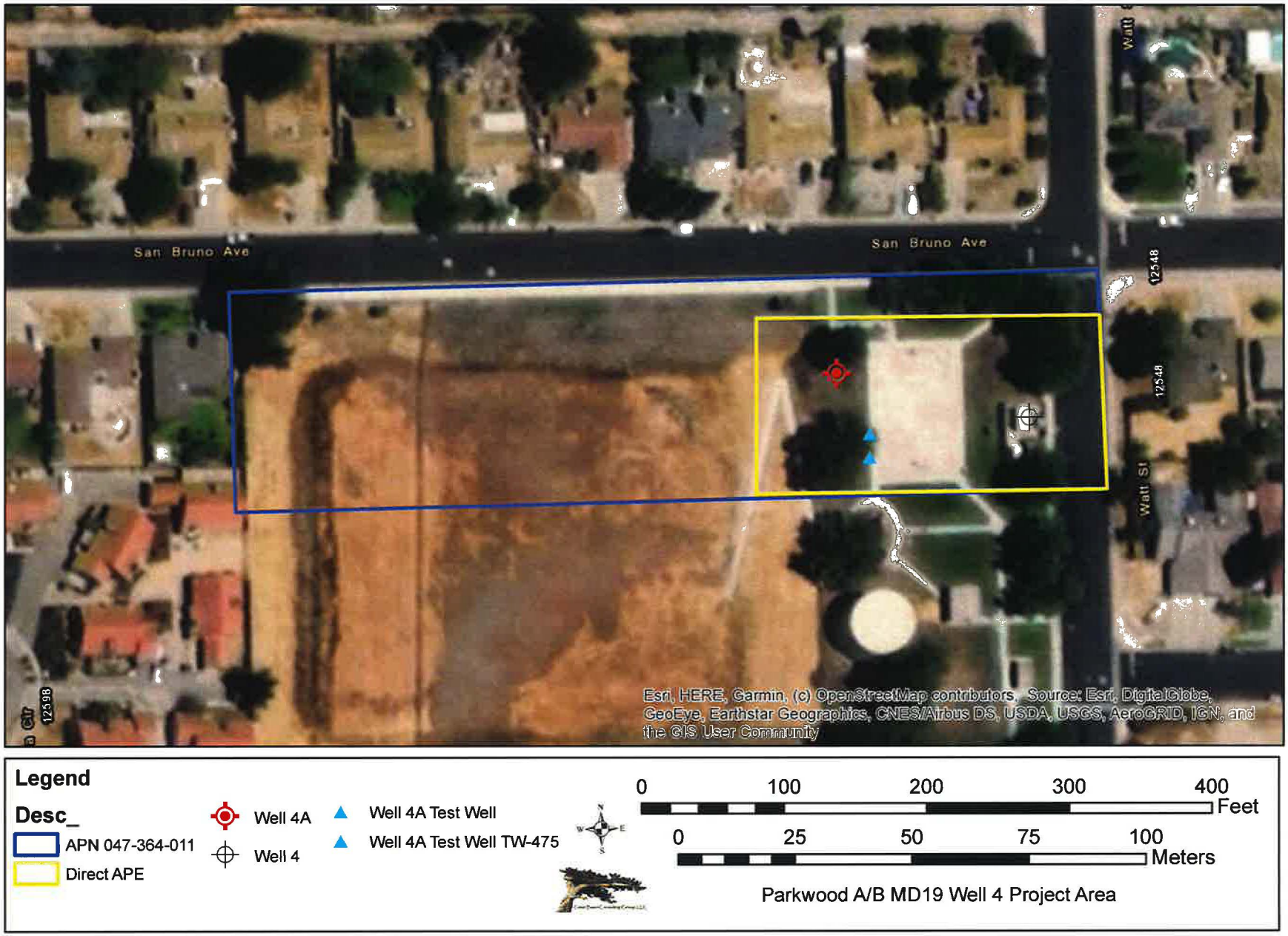

Figure 2. Project Area

a pressure switch (or transmitter) and pressure gage and air vacuum/air release valve connections. The spool piece is supported by a pipe support and connects to an 8-inch x 4-inch x 8-inch tee for pump to waste. The pump to waste 8-inch x 4-inch tee consists of the 8-inch flow thru dimension and a 4-inch connection for the pump to waste. The 4-inch pump to waste tee connects to manually operated gate valve, and a 4-inch blind flange. The 8-inch flow-thru end connects to an 8-inch swing check valve, 8-inch dismantling joint and then to a 1 ft. 6-inch pipe spool supported by a pipe support.

The pipe spool connects to a manually operated 8-inch gate valve which is attached to an 8-inch 90-degree elbow and then a 4 ft. – 9-inch pipe that goes below the 6-inch concrete base slab about 2 feet below the 90-degree elbow. The 4 ft. – 9-inch pipe spool connects to a 8-inch 90 degree mechanical joint elbow which starts the pipeline consisting of; 13 feet of pipe, a 90 degree elbow, 36 feet of pipe, a 90 degree elbow, 68 feet of pipe, a 45 degree elbow, 67 feet of pipe, a 45 degree elbow, 5 feet of pipe, a 90 degree elbow, 5 feet of pipe, a 90 degree elbow, a gate valve, 5 feet of pipe (pipe supported), an 8-inch dismantling joint, a flow meter, 3 feet of pipe (pipe supported) and connection to the existing Well 4A hydro pneumatic tank piping inlet butterfly valve.

In addition to the mechanical piping already identified, this project will have a 6-inch thick reinforced concrete slab on grade 20 feet long by 12 feet wide. The concrete slab on grade will have a footing and the area will be fenced with removable posts for well rehabilitation. Electrical conduits will be installed from the new pump/motor location back to the previous well pump and motor location where the original power conduits are located. The new pump and motor will have a Sound Attenuation Hood installed on it to dampen the noise to levels in compliance with the local noise ordinance. The pump will be a vertical turbine deep well pump equipped with a premium efficiency 1800 rpm vertical hollow shaft 150 hp motor. Some limited site grading will occur for the 20-foot long and 12-foot wide area for the concrete slab on grade. Additional site components include low pedestal LED lighting for the facility.

Below Grade Infrastructure Design

The design includes a 32-inch diameter mild steel conductor casing grouted in place to a depth of 50 feet below ground surface (bgs). The conductor casing will serve to stabilize the upper formations during borehole drilling, and to provide the DDW required sanitary seal. Inside the conductor casing, a 28-inch diameter borehole extends to a depth of 570 feet bgs. The well structure includes a 16-inch

outside diameter mild steel well casing to a depth of 300 feet and transitions into a stainless-steel well casing and louvered well screen assembly. The design consists of a 10-foot sump, 40 feet of well screen, and 510 feet (excluding the stick-up above ground surface) of blank well casing, extending to a depth of 550 feet bgs.

To accommodate for the potential of future inelastic land subsidence in the area, it was determined to add additional protection of the well structure. A fully extended compression section is included from 380 to 400 feet to accommodate for any potential subsidence. The screen section has been designed to be "Ful-Flo" louvered well screen, with a slot size of 0.055 inches to provide the acceptable inlet velocities, suitable open area, and retention of the selected gravel envelope material. A 3-inch diameter steel gravel fill pipe extends to a depth of 327 feet bgs and a 2-inch diameter stainless steel sounding pipe will extend to and enter the well casing at a depth of 378 feet bgs. The annular space will be filled with 8x16 graded gravel from the bottom of the borehole to 312 feet bgs. A two-foot fine sand transition seal will be placed on top of the gravel envelope from 312 feet to 310 feet bgs, with a sand/cement grout annular seal from 310 feet bgs to ground surface.

Record Search Results

On April 26, 2019, GBCG submitted a data request to the Southern San Joaquin Valley Information Center (SSJVIC), California State University, Bakersfield under Permit #281. The record search extent covered a ½ mile radius surrounding the well parcel. The data request included:

- Mapped archaeological resource locations;
- Mapped report locations;
- Resource database printout;
- Report database printout;
- Copies of archaeological resource records;
- OHP historic properties directory;
- OHP determinations of eligibility;
- California Inventory of Historical Resources;
- Historic Maps;
- GLO and/or Rancho Plat maps.

Record Search Results

On May 9, 2019, SSJIV sent results of the record search via email (19-168). Eighteen cultural resource studies have been conducted within a one-half mile radius of the project area (Table 1, Figure 3). The project parcel and direct APE have not been inventoried. No resources are located within the project area. Of the eighteen inventories within the project vicinity, only four identified cultural resources.

Two cultural resources have been recorded within the one-half mile record search boundary (Table 2). Madera Canal Irrigation District (MID) Lateral 6.2 (P-20-002308/CA-MAD-002649H) bisects section 31 and extends throughout the project vicinity. The nearest lateral lie between 0.2 miles south and 0.5 miles west of the Direct APE

The Madera Canal and MID distribution system was originally designed with and reliant on sizable lateral canals to distribute water from the canal to the lower lying agricultural properties within the County. The original design included 14 laterals canals extending from the Madera Canal between Friant Reservoir and the Chowchilla River. As the canals extend from the Madera Canal, divisions and offshoots create a network of canals covering much of the County. Each canal extends for tens of miles, totaling hundreds of miles throughout the county.

Lateral 6.2 was previously recorded as part of cultural resource studies in 1992, 2006, 2015 and 2016. None of the earlier evaluations consider the MID Lateral 6.2 Canal as a contributor to the larger irrigation district. The MID Lateral 6.2 Canal was neither the earliest nor most significant lateral canal as part of the Madera Canal or Central Valley Project. Segment 6.2 retains sufficient integrity but does not meet the eligibility requirements of Criteria 1/A through 4/D for listing in the National or California Registers. This property does not appear to meet the criteria for listing in the NRHP or the CRHR.

The Borden Chinese Cemetery is located 1.2 miles southeast of the existing well head. No constructed features are shown within Section 31, Township 11 South, Range 18 East on the 1852 General Land Office Survey Plat (GLO Plat). No properties are listed on the National Register of Historic Places, Office of Historic Preservation Historic Property Directory, or the OHP Archaeological Determinations of Eligibility, or OHP Historic Properties Directory occur in the project area.

Table 1. Cultural Resource inventories within one-half mile of project area.

Report Number	Additional Citation	Other ID	Xref	Authors	Year	Title	Publisher	Report Type	Size	Inventory Notes	Resources
MA-00083		NADB-R - 1140863	Extends into another county as FR-00135; Extends into another county as KE-01832; Extends into another county as KI-00028; Extends into another county as TU-00102	Hatoff, Brian, Voss, Barb, Waechter, Sharon, Wee, Stephen, and Benté, Vance	1995	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project	Woodward-Clyde Consultants	Archaeological, Field study	591.7 linear miles and 227.31 acres		20-002122
MA-00214				Crist, Michael K.	1981	Cultural Resource Reconnaissance for the Sayre Ranch Annexation EIR, Madera County	Buada Associates	Archaeological, Field study	111 Acres	NEGATIVE	
MA-00313		Caltrans - 06-MAD-145 PM 7.8 CU 06351 EA 215200		O'Connor, Denise and Clayton, H. B.	1981	Archaeological Survey Report a Proposed Left-Turn Channelization Project on Route 145	California Department of Transportation	Archaeological, Field study		NEGATIVE	
MA-00391				Varner, Dudley M.	1975	Parksdale Sewer System Project	California State University, Fresno	Archaeological, Field study		NEGATIVE	
MA-00429		Submitter - State Clearinghouse #85010703		Wren, Donald G.	1985	An Archaeological Reconnaissance of the Madera Unified School District South High School Site	Individual Consultant	Archaeological, Field study	60 acres	NEGATIVE	
MA-00458				Wren, Donald G.	1996	An Archaeological Survey of the Beal Property Avenue 12 and Highway 99, Madera County, California	Individual Consultant	Archaeological, Field study	15 acres	NEGATIVE	
MA-00956		Caltrans - 06-MAD-99 EA 06-407200; Submitter - LSA Project No. URS032	See also MA-00957; See also MA-00958	Kelley, John and Marvin, Judith	2001	Historic Property Survey Report (Positive) for the State Route 99/State Route 145 and State Route 99/Gateway Drive Interchange Improvements	LSA Associates, Inc.	Architectural/Historical, Field study			20-002496
MA-00956	A			Marvin, Judith	2001	Historic Study Report and Historic Architectural Survey Report (Positive) for the State Route 99/State Route 145, and State Route 99/Gateway Drive Interchange Improvements, City of Madera, Madera County, California	LSA Associates, Inc.	Architectural/Historical, Field study			
MA-00956	B			Kelley, John and Kaptain, Neal	2001	Archaeological Survey Report (Positive) for the State Route 99/State Route 145, and State Route 99/Gateway Drive Interchange Improvements, City of Madera, Madera County, California	LSA Associates, Inc.	Archaeological, Field study			
MA-01003		Submitter - LSA Project No. KBH540	Extends into another county as TU-01247	Kaptain, Neal and Matzen, Ben	2005	A Cultural and Paleontological Resources Study for Eight KB Home Projects, Stanislaus, Merced, Madera, and Tulare Counties, California	LSA Associates, Inc.	Archaeological, Field study	721.01 Acres	NEGATIVE for Madera County	
MA-01026		Submitter - SWCA Cultural Resources Report Database No. 06-507; Submitter - SWCA Project No. 10715-180	Extends into another county as FR-02287; Extends into another county as KE-03528; Extends into another county as TU-01324	Arrington, Cindy, Bass, Bryon, Brown, Joan, Corey, Chris, and Hunt, Kevin	2006	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California	SWCA Environmental Consultants	Archaeological, Monitoring	1,431 linear miles		
MA-01026	A			SWCA Environmental Consultants	2000	Qwest Fiber Optic Project Cultural Resources Protocols	SWCA Environmental Consultants	Management/planning			
MA-01136		Caltrans - 06-MAD-99 EA 06-47100; Project ID 06-0000-0463 PM R7.1/R7.9		Vallejo, Phillip	2011	Supplemental Historic Resource Evaluation Report for the Avenue 12 Intechange Project, Madera County, California: 06-MAD-99 E.A. 06-47100; Project ID 06-0000-0463 PM R7.1/R7.9	California Department of Transportation	Archaeological, Architectural/historical, Management/planning		NEGATIVE	
MA-01137		Caltrans - 06-MAD-99 PM R7.1/R7.9 EA 06-471000 Project ID #0600000463		Lanner, David	2011	Archaeological Survey Report State Route 99 and Avenue 12 Interchange Project, City of Madera, Madera County, California	California Department of Transportation	Archaeological, Field study	Ten acres		20-002827
MA-01217		Caltrans - 06-MAD-99 PM 7.5/15.1 EA 06-47090		Miller, Michelle	2014	Archaeological Survey Report for the Madera 99 Widening Project 06-MAD-99 Madera County, California	California Department of Transportation	Archaeological, Field study		NEGATIVE	
MA-01259		Caltrans - E.A. 06-0W360		Valentin, Sylvere	2017	Historic Property Survey Report for the Madera 145 ADA Ramps Project, Madera County, California	Caltrans	Architectural/Historical, Field study	53 acres		20-003143, 20-003144
MA-01259	A			Valentin, Sylvere	2017	Archaeological Survey Report for the Install and Upgrade Americans with Disabilities Act (ADA) Ramps Project, Madera County, California	Caltrans	Archaeological, Field study	53 acres		
MA-01259	B			Hernandez, Hansel	2017	Historic Resources Evaluation Report for the Madera 145 ADA Ramps Project, Madera County, California	JRP Historical Consulting	Architectural/Historical, Evaluation	n/a		

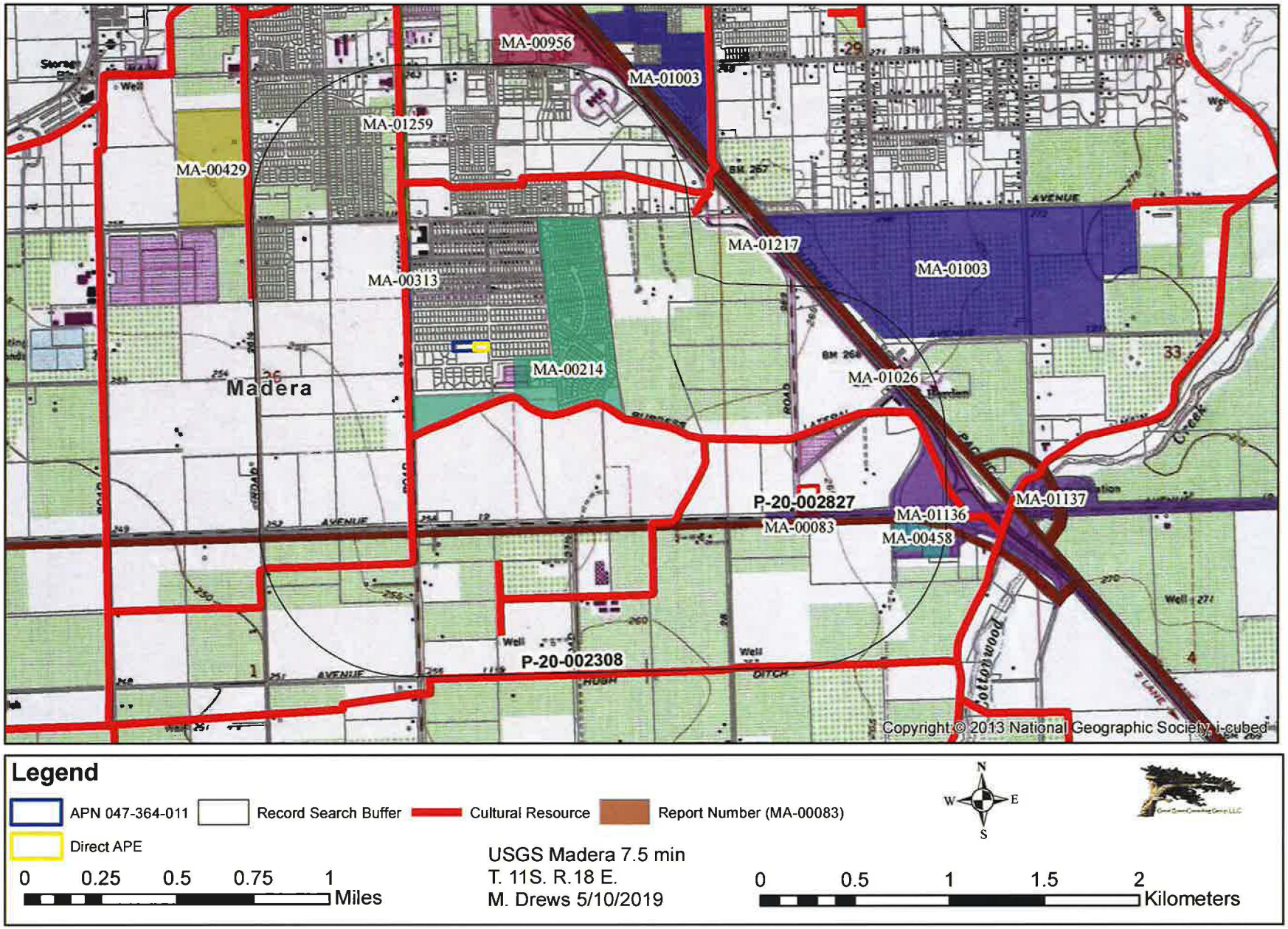

Figure 3a. Cultural Resource Investigations and Cultural Resources within one-half mile of project area.

Table 2. Archeological Resources wiithin one-half mile of project area.

Primary Number	Trinomial	Resource Name	Other ID	Xrefs	Resource Type
P-20-002308	CA-MAD-002649H	Madera Canal; Madera Irrigation District; MID; MID Lateral 6.2 Segments	Resource Name - Madera Canal; Madera Irrigation District; MID; Resource Name - MID Lateral 6.2 Segments	See also 20-002393; See also 20-002402; See also 20-003017; Subsumes 20-002488; Subsumes 20-002491; Subsumes 20-003018; Subsumes 20-003105	Structure
	Age	**Attributess**	**Resource Notes**	**Recording Events**	**Reports**
	Historic	AH06; HP20	Multiple resources included segments of the Madera Canal and portions of the ancillary Madera Irrigation District canals in a way that made it necessary to subsume all records related to the Madera Canal and Madera Irrigation District in one record.	1992 (Unknown, JRP Historical Consulting Services); 2000 (Karana Hattersley-Drayton, Caltrans); 2005 (G. Roark, C. Fish, Jones & Stokes); 2005; 2009 (Joseph Freeman and Rebecca Flores, JRP Historical Consulting, LLC);	MA-01203, MA-01254, MA-01257, MA-01266, MA-01267, MA-01287

Primary Number	Trinomial	Resource Name	Other ID	Xrefs	Resource Type
P-20-002827	CA-MAD-002671H	Borden Chinese Cemetery	Resource Name - Borden Chinese Cemetery		Site
	Age	**Attribs**	**ResourceNotes**	**RecordingEvents**	**Reports**
	Protohistoric, Historic	HP40		2011 (David Laner and Philip Vallejo)	MA-01137

Findings

The project area consists of an active and abandoned well field. It lies within a developed area and has been subjected to extensive surface and subsurface disturbance. No previously recorded sites lie within the well head area and it is unlikely that additional intact cultural resources. The proposed project will have no effect on known cultural resources.

If additional prehistoric or historic resources are subsequently discovered during construction, the The California Department of Water Resources and California SHPO should be notified and activities in the area should cease until those resources can be evaluated. Cultural resources could consist of but are not limited to stone, bone, wood, or shell artifacts, or features including hearths, structural remains, or historic dumpsites. If historic properties are inadvertently discovered, reasonable efforts to avoid, minimize, or mitigate adverse effects to the property will be taken and the State Historic Preservation Officer (SHPO) and Indian tribes with concerns about the property, and the Advisory Council on Historic Preservation (Council) will be notified within 48 hours in compliance with 36 CFR 800.13 (b) (3).

AB32 Consultation

The California Native American Heritage Commission (NAHC) was contacted on March 5, 2019 and a Tribal Consultation list was requested *Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2.* A Sacred Lands File search was also submitted as part of that request. Upon receipt of the tribal list, Consultation letters will be prepared for to respective Tribes describing the proposed project and inviting them to begin Informal Section 106 and NEPA Consultation. Those letters and responses will be attached to final CEQA documentation for the project. No sacred lands were identified by the NAHC.

NAHC Correspondence

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691 Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

March 11, 2019

Michael Drews
Madera County Public Works Department

VIA Email to: mdrews@greatbasingroup.com

RE: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Parkwood A/B MD19 Well 4, Madera County.

Dear Mr. Drews:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

> Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

   - A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;

   - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;

   - Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and

   - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measures.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was negative.
4. Any ethnographic studies conducted for any area including all or part of the APE; and
5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,

for Katy Sanchez
Associate Environmental Planner

Attatchment

Native American Heritage Commission
Native American Contacts List
3/11/2019

Dumna Wo-Wah Tribal Goverment
Robert Ledger Sr., Chairperson
2191 West Pico Ave.
Fresno ,CA 93705
ledgerrobert@ymail.com
(559) 540-6346

Dumna/Foothill Yokuts
Mono

North Valley Yokuts Tribe
Katherine Erolinda Perez, Chairperson
P.O. Box 717
Linden ,CA 95236
canutes@verizon.net
(209) 887-3415

Ohlone/Costanoan
Northern Valley Yokuts
Bay Miwok

Southern Sierra Miwuk Nation
William Leonard, Chairperson
P.O. Box 186
Mariposa ,CA 95338
(209) 628-8603 Office

Miwok
Pauite
Northern Valley Yokut

Wuksache Indian Tribe/Eshom Valley Band
Kenneth Woodrow, Chairperson
1179 Rock Haven Ct.
Salinas ,CA 93906
kwood8934@aol.com
(831) 443-9702

Foothill Yokuts
Mono
Wuksache

This list is current as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code,Section 5097.94 of the Public Resources Code, or Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American Tribes for the proposed:
Parkwood A/B MD19 Well 4, Madera County.

SSJVIC Consultation

California Historical Resources Information System

Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

5/6/2019

Michael Drews
Great Basin Consulting Group, LLC
200 Winters Drive
Carson City, NV 89703

Re: Parkland A/B MD19 Well 4 Project
Records Search File No.: 19-168

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on the Madera USGS 7.5' quad. The following reflects the results of the records search for the project area and the 0.5 mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☐ custom GIS maps ☒ shapefiles

Resources within project area:	P-20-002308
Resources within 0.5 mile radius:	P-20-002827
Reports within project area:	MA-00214, 00313, 00391, 01136, 01137, 01259
Reports within 0.5 mile radius:	MA-00083, 00429, 00458, 00956, 01003, 01026, 01217

Resource Database Printout (list):	☐ enclosed	☒ not requested	☐ nothing listed
Resource Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (list):	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (details):	☒ enclosed	☐ not requested	☐ nothing listed
Report Digital Database Records:	☒ enclosed	☐ not requested	☐ nothing listed
Resource Record Copies:	☒ enclosed	☐ not requested	☐ nothing listed
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed
OHP Historic Properties Directory:	☒ enclosed	☐ not requested	☐ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	☐ not requested	☒ nothing listed
CA Inventory of Historic Resources (1976):	☐ enclosed	☐ not requested	☒ nothing listed

Caltrans Bridge Survey: Not available at SSJVIC; please see http://www.dot.ca.gov/hq/structur/strmaint/historic.htm

Ethnographic Information: Not available at SSJVIC

Historical Literature: Not available at SSJVIC

Historical Maps: Not available at SSJVIC; please see http://historicalmaps.arcgis.com/usgs/

Local Inventories: Not available at SSJVIC

GLO and/or Rancho Plat Maps: Not available at SSJVIC; please see http://www.glorecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=1 and/or http://www.oac.cdlib.org/view?docId=hb8489p15p;developer=local;style=oac4;doc.view=items

Shipwreck Inventory: Not available at SSJVIC; please see http://www.slc.ca.gov/Info/Shipwrecks.html

Soil Survey Maps: Not available at SSJVIC; please see http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Celeste M. Thomson
Coordinator

ReportNum	DocAddOnLetter	Status	OtherIDs	Xrefs	Authors	CitYear	CitMonth	CitTitle	CitPublisher	CitPages	CitMaps	ReportType	InventorySize	InventoryDisclosure	InventoryCollectionI	InventoryNotes	Resources	ResourceCount	HasInformants	Counties	Maps	Address	PLSS
MA-00083			NADB-R - 1140863	Extends into another county as FR-00135; Extends into another county as KE-01532; Extends into another county as KI-00028; Extends into another county as TU-00102	Heloff, Brian Voss, Barb, Wiechter, Sharon Wee, Stephen and Bentz, Vance	1995	Jul	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project	Woodward-Clyde Consultants	1557	152	Archaeological, Field study	591.7 linear miles and 227.31 acres	Not for publication	No		20-002122	1	No	Madera	Berenda, Chowchilla, Fresno North, Gregg, Herndon, Kismet, Madera, Plainsburg		
MA-00214					Crist, Michael K	1981	Jun	Cultural Resource Reconnaissance for the Sayre Ranch Annexation EIR, Madera County	Buada Associates	8	1	Archaeological, Field study	111 Acres	Not for publication	No	NEGATIVE		0	No	Madera	Madera		T11S R16E Sec. 31 MDBM
MA-00313			Caltrans - 06-MAD-145 PM 7.8 CU 06351 EA 215200		O'Connor, Denese and Clayton, H. B	1981	Jan	Archaeological Survey Report a Proposed Left-Turn Channelization Project on Route 145	California Department of Transportation	7	2	Archaeological, Field study		Not for publication	No	NEGATIVE Has over-sized map		0	No	Madera	Madera		T11S R17E, T11S R16E
MA-00351					Varner, Dudley M	1975	Apr	Parksdale Sewer System Project	California State University, Fresno	9	4	Archaeological, Field study		Not for publication	No	NEGATIVE		0	No	Madera	Madera		
MA-00429			Submitter - State Clearinghouse #85010703		Wren, Donald G	1985	Feb	An Archaeological Reconnaissance of the Madera Unified School District South High School Site	Individual Consultant	8	2	Archaeological, Field study	60 acres	Not for publication	No	NEGATIVE		0	No	Madera	Madera		T11S R17E Sec. 25 MDBM
MA-00458					Wren, Donald G	1996	Jan	An Archaeological Survey of the Beat Property Avenue 12 and Highway 99, Madera County, California	Individual Consultant	6	2	Archaeological, Field study	15 acres	Not for publication	No	NEGATIVE		0	No	Madera	Madera		T12S R16E Sec. 5 MDBM
MA-00556			Caltrans - 06-MAD-99 EA 06-407200; Submitter - LSA Project No. LRS032	See also MA-00557; See also MA-00558	Kelley, John and Marvin, Judith	2001	Aug	Historic Property Survey Report (Positive) for the State Route 99/State Route 145 and State Route 99/Gateway Drive Interchange Improvements	LSA Associates, Inc	58	0	Architectural/Historical, Field study		Not for publication	No	Has over-sized map	20-002496	1	No	Madera	Madera		T11S R17E Sec. 24, 25 MDBM; T11S R16E Sec. 19, 30 MDBM
MA-00556	A				Marvin, Judith	2001	Jul	Historic Study Report and Historic Architectural Survey Report (Positive) for the State Route 99/State Route 145, and State Route 99/Gateway Drive Interchange Improvements, City of Madera, Madera County, California	LSA Associates, Inc	31	0	Architectural/Historical, Field study		Not for publication	No								
MA-00956	B				Kelley, John and Kaptain, Neal	2001	Aug	Archaeological Survey Report (Positive) for the State Route 99/State Route 145 and State Route 99/Gateway Drive Interchange Improvements, City of Madera, Madera County, California	LSA Associates, Inc	18	3	Archaeological, Field study		Not for publication	No								
MA-01003			Submitter - LSA Project No. KBH540	Extends into another county as TU-01247	Kaptain, Neal and Matzen, Ben	2005	Oct	A Cultural and Paleontological Resources Study for Eight KB Home Projects, Stanislaus, Merced, Madera, and Tulare Counties, California	LSA Associates, Inc	32	9	Archaeological, Field study	721.94 Acres	Not for publication	No	NEGATIVE for Madera County		0	No	Madera	Madera		T11S R16E Sec. 30, 32, 33 MDBM
MA-01026			Submitter - SWCA Cultural Resources Report Database No. 06-507; Submitter - SWCA Project No. 10715-180	Extends into another county as FR-02287; Extends into another county as KE-03528; Extends into another county as TU-01324	Arrington, Cindy, Bass, Bryon, Brown, Joan, Carey, Chris, and Hunt, Kevin	2006	Dec	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California	SWCA Environmental Consultants	452	130	Archaeological, Monitoring	1,431 linear miles	Not for publication	No			0	Yes	Madera	Burns Park, Coal Oil Canyon, Conejo, Connor, Connor SW, Delhi, Delhi West, Famoso, Frazier Mountain, Fresno North, Fresno South, Gosford, Goshen, Grapevine, Herndon, Lamont, Lebec, Madera, Malaga, McFarland, Mettler, Oildale, Pixley, Rosedale, Selma, Tipton, Traver, Tulare, Visalia		
MA-01026	A				SWCA Environmental Consultants	2000	Feb	Qwest Fiber Optic Project Cultural Resources Protocols	SWCA Environmental Consultants	64	0	Management/planning		Unrestricted	No								
MA-01136			Caltrans - 06-MAD-99 EA 06-47100; Project ID 06-0000-0463 PM R7 VR7 9		Vallejo, Phillip	2011	Jun	Supplemental Historic Resource Evaluation Report for the Avenue 12 Interchange Project, Madera County, California. 06-MAD-99 E A. 06-47100; Project ID 06-0000-0463 PM R7, VR7 9	California Department of Transportation	20	9	Archaeological, Architectural/historical, Management/planning		Not for publication	No	NEGATIVE		0	No	Madera	Gregg, Madera		T11S R16E Sec. 32, 33 MDBM; T12S R16E Sec. 4, 5 MDBM
MA-01137			Caltrans - 06-MAD-99 PM R7 VR7 9 EA 06-47100 Project ID #06000000463		Lamror, David	2011	Sep	Archeological Survey Report State Route 99 and Avenue 12 Interchange Project, City of Madera, Madera County, California	California Department of Transportation	13	5	Archaeological, Field study	Two acres	Not for publication	No		20-002827	1	No	Madera	Gregg, Madera		T11S R16E Sec. 32, 33 MDBM; T12S R16E Sec. 4, 5 MDBM
MA-01217			Caltrans - 06-MAD-99 PM 7.5/15.1 EA 06-47000		Miller, Michelle	2014	Dec	Archaeological Survey Report for the Madera 99 Widening Project 06-MAD-99 Madera County, California	California Department of Transportation	38	12	Archaeological, Field study		Not for publication	No	NEGATIVE		0	No	Madera	Kismet, Madera		T11S R17E Sec. 3, 4, 10, 13, 14, 19, 24, 29, 30, 32 MDBM
MA-01259			Caltrans - E.A. 06-0W360		Valentin, Sylvere	2017	Aug	Historic Property Survey Report for the Madera 145 ADA Ramps Project, Madera County, California	Caltrans	21	7	Architectural/Historical, Field study	53 acres	Not for publication	No		20-003143; 20-003144	2	No	Madera	Madera		T11S R17E Sec. 19, 24, 25, 30 MDBM T11S R16E Sec. 19, 24, 25, 30 MDBM
MA-01259	A				Valentin, Sylvere	2017	Jul	Archaeological Survey Report for the Install and Upgrade Americans with Disabilities Act (ADA) Ramps Project, Madera County, California	Caltrans	48	11	Archaeological, Field study	53 acres	Not for publication	No								
MA-01259	B				Hernandez, Hansel	2017	Jul	Historic Resources Evaluation Report for the Madera 145 ADA Ramps Project, Madera County, California	JRP Historical Consulting	25	0	Architectural/Historical, Evaluation	n/a	Not for publication	No								

Report Detail: MA-00083

SSJVIC Record Search 19-168

Identifiers

Report No.: MA-00083

Other IDs:	*Type*	*Name*
	NADB-R	1140863

Cross-refs: Extends into another county as FR-00135
Extends into another county as KE-01832
Extends into another county as KI-00028
Extends into another county as TU-00102

Citation information

Author(s): Hatoff, Brian, Voss, Barb, Waechter, Sharon, Wee, Stephen, and Benté, Vance
Year: 1995 (Jul)
Title: Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project
Affiliation: Woodward-Clyde Consultants
No. pages: 1557
No. maps: 152
Attributes: Archaeological, Field study
Inventory size: 591.7 linear miles and 227.31 acres
Disclosure: Not for publication
Collections: No

General notes

Associated resources

	Primary No.	*Trinomial*	*Name*
	P-20-002122	CA-MAD-002121H	MNM-4H

No. resources: 1
Has informals: No

Location information

County(ies): Madera
USGS quad(s): Berenda, Chowchilla, Fresno North, Gregg, Herndon, Kismet, Madera, Plainsburg
Address:
PLSS:

Database record metadata

	Date	*User*
Entered:	6/1/2011	ssjvic
Last modified:	12/19/2015	user1

IC actions:	*Date*	*User*	*Action taken*
	6/1/2011	ssjvic	Entered primary: CLC
	6/1/2011	ssjvic	Project areas mapped: CLC
	12/19/2015	user1	Entered report: MMB

Record status: Database Complete

Report Detail: MA-00429

SSJVIC Record Search 19-168

Identifiers

Report No.: MA-00429

Other IDs:	*Type*	*Name*
	Submitter	State Clearinghouse #85010703

Cross-refs:

Citation information

Author(s): Wren, Donald G.
Year: 1985 (Feb)
Title: An Archaeological Reconnaissance of the Madera Unified School District South High School Site
Affiliation: Individual Consultant
No. pages: 8
No. maps: 2
Attributes: Archaeological, Field study
Inventory size: 60 acres
Disclosure: Not for publication
Collections: No

General notes

NEGATIVE

Associated resources

No. resources: 0
Has informals: No

Location information

County(ies): Madera
USGS quad(s): Madera
Address:
PLSS: T11S R17E Sec. 25 MDBM

Database record metadata

	Date	*User*
Entered:	7/19/2011	ssjvic
Last modified:	8/22/2016	user1

IC actions:	*Date*	*User*	*Action taken*
	7/19/2011	ssjvic	Entered primary: CLC
	7/19/2011	ssjvic	Project area mapped: CLC
	8/22/2016	user1	Entered report: MMB

Record status: Database Complete

Report Detail: MA-00458

SSJVIC Record Search 19-168

Identifiers

Report No.: MA-00458
Other IDs:
Cross-refs:

Citation information

Author(s): Wren, Donald G.
Year: 1996 (Jan)
Title: An Archaeological Survey of the Beal Property Avenue 12 and Highway 99, Madera County, California
Affiliation: Individual Consultant
No. pages: 6
No. maps: 2
Attributes: Archaeological, Field study
Inventory size: 15 acres
Disclosure: Not for publication
Collections: No

General notes

NEGATIVE

Associated resources

No. resources: 0
Has informals: No

Location information

County(ies): Madera
USGS quad(s): Madera
Address:
PLSS: T12S R18E Sec. 5 MDBM

Database record metadata

	Date	*User*
Entered:	7/19/2011	ssjvic
Last modified:	8/22/2016	user1

IC actions:	*Date*	*User*	*Action taken*
	7/19/2011	ssjvic	Entered primary: CLC
	7/19/2011	ssjvic	Project area mapped: CLC
	8/22/2016	user1	Entered report: MMB

Record status: Database Complete

Report Detail: MA-00956

SSJVIC Record Search 19-168

Identifiers

Report No.: MA-00956

Other IDs:	*Type*	*Name*
	Caltrans	06-MAD-99 EA 06-407200
	Submitter	LSA Project No. URS032

Cross-refs: See also MA-00957
See also MA-00958

Citation information

Author(s): Kelley, John and Marvin, Judith
Year: 2001 (Aug)
Title: Historic Property Survey Report (Positive) for the State Route 99/State Route 145 and State Route 99/Gateway Drive Interchange Improvements
Affiliation: LSA Associates, Inc.
No. pages: 58
No. maps: 8
Attributes: Architectural/Historical, Field study
Inventory size:
Disclosure: Not for publication
Collections: No

Sub-desig.: A
Author(s): Marvin, Judith
Year: 2001 (Jul)
Title: Historic Study Report and Historic Architectural Survey Report (Positive) for the State Route 99/State Route 145, and State Route 99/Gateway Drive Interchange Improvements, City of Madera, Madera County, California
Affiliation: LSA Associates, Inc.
Report type(s): Architectural/Historical, Field study
Inventory size:
No. pages: 31
Disclosure: Not for publication
Collections: No
PDF Pages: 28-58

Sub-desig.: B
Author(s): Kelley, John and Kaptain, Neal
Year: 2001 (Aug)
Title: Archaeological Survey Report (Positive) for the State Route 99/State Route 145, and State Route 99/Gateway Drive Interchange Improvements, City of Madera, Madera County, California
Affiliation: LSA Associates, Inc.
Report type(s): Archaeological, Field study
Inventory size:
No. pages: 18
Disclosure: Not for publication
Collections: No
PDF Pages: 10-27

General notes

Has over-sized map.

Associated resources

Primary No.	*Trinomial*	*Name*
P-20-002496	CA-MAD-002379	Francis Cavin Residence Site (M

No. resources: 1
Has informals: No

Report Detail: MA-00956

SSJVIC Record Search 19-168

Location information

County(ies): Madera
USGS quad(s): Madera
Address:
PLSS: T11S R17E Sec. 24, 25 MDBM
T11S R18E Sec. 19, 30 MDBM

Database record metadata

	Date	*User*
Entered:	9/1/2016	user1
Last modified:	10/9/2018	User

IC actions:	*Date*	*User*	*Action taken*
	9/1/2016	user1	Entered report: MMB
	10/9/2018	User	Entered over-sized map notation: DB

Record status: Database Complete

Report Detail: MA-01003

SSJVIC Record Search 19-168

Identifiers

Report No.: MA-01003

Other IDs:	*Type*	*Name*
	Submitter	LSA Project No. KBH540

Cross-refs: Extends into another county as TU-01247

Citation information

Author(s): Kaptain, Neal and Matzen, Ben

Year: 2005 (Oct)

Title: A Cultural and Paleontological Resources Study for Eight KB Home Projects, Stanislaus, Merced, Madera, and Tulare Counties, California

Affiliation: LSA Associates, Inc.

No. pages: 32

No. maps: 9

Attributes: Archaeological, Field study

Inventory size: 721.01 Acres

Disclosure: Not for publication

Collections: No

General notes

NEGATIVE for Madera County

Associated resources

No. resources: 0

Has informals: No

Location information

County(ies): Madera

USGS quad(s): Madera

Address:

PLSS: T11S R18E Sec. 30, 32, 33 MDBM

Database record metadata

	Date	*User*
Entered:	1/6/2014	ssjvic
Last modified:	8/3/2016	user1

IC actions:	*Date*	*User*	*Action taken*
	1/6/2014	ssjvic	Entered: CT
	7/14/2014	cthomson	Edited: CT

Record status: Database Complete

Report Detail: MA-01026

SSJVIC Record Search 19-168

Identifiers

Report No.: MA-01026

Other IDs:	*Type*	*Name*
	Submitter	SWCA Project No. 10715-180
	Submitter	SWCA Cultural Resources Report Database No. 06-507

Cross-refs: Extends into another county as FR-02287
Extends into another county as KE-03528
Extends into another county as TU-01324

Citation information

Author(s): Arrington, Cindy, Bass, Bryon, Brown, Joan, Corey, Chris, and Hunt, Kevin
Year: 2006 (Dec)
Title: Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project, State of California
Affiliation: SWCA Environmental Consultants
No. pages: 452
No. maps: 130
Attributes: Archaeological, Monitoring
Inventory size: 1,431 linear miles
Disclosure: Not for publication
Collections: No

Sub-desig.: A
Author(s): SWCA Environmental Consultants
Year: 2000 (Feb)
Title: Qwest Fiber Optic Project Cultural Resources Protocols
Affiliation: SWCA Environmental Consultants
Report type(s): Management/planning
Inventory size:
No. pages: 64
Disclosure: Unrestricted
Collections: No
PDF Pages: 389-452

General notes

Associated resources

No. resources: 0
Has informals: Yes

Location information

County(ies): Madera
USGS quad(s): Burris Park, Coal Oil Canyon, Conejo, Conner, Conner SW, Delano West, Famoso, Frazier Mountain, Fresno North, Fresno South, Gosford, Goshen, Grapevine, Herndon, Lamont, Lebec, Madera, Malaga, McFarland, Mettler, Oildale, Pixley, Rosedale, Selma, Tipton, Traver, Tulare, Visalia
Address:
PLSS:

Database record metadata

	Date	*User*
Entered:	6/26/2013	ssjvic
Last modified:	12/15/2017	User

IC actions:	*Date*	*User*	*Action taken*
	6/26/2013	ssjvic	report entered: cls
	6/4/2014	cthomson	Updated: CT

Record status: Database Complete

Report Detail: MA-01217

SSJVIC Record Search 19-168

Identifiers

Report No.: MA-01217

Other IDs:	*Type*	*Name*
	Caltrans	06-MAD-99 PM 7.5/15.1 EA 06-47090

Cross-refs:

Citation information

Author(s): Miller, Michelle
Year: 2014 (Dec)
Title: Archaeological Survey Report for the Madera 99 Widening Project 06-MAD-99 Madera County, California
Affiliation: California Department of Transportation
No. pages: 38
No. maps: 12
Attributes: Archaeological, Field study
Inventory size:
Disclosure: Not for publication
Collections: No

General notes

NEGATIVE

Associated resources

No. resources: 0
Has informals: No

Location information

County(ies): Madera
USGS quad(s): Kismet, Madera
Address:
PLSS: T11S R17E Sec. 3, 4, 10, 13, 14, 19, 24, 29, 30, 32 MDBM

Database record metadata

	Date	*User*
Entered:	4/1/2015	user
Last modified:	9/15/2016	cthomson

IC actions:	*Date*	*User*	*Action taken*
	4/1/2015	user	report entered: cls
	4/1/2015	user	report mapped: cls
	9/15/2016	cthomson	Entered location: MMB

Record status: Database Complete

PrimaryString	TribalAffString	ResourceName	Status	OtherIDs	Xrefs	ResType	Age	InfoBase	Attribs	ResourceAssessment	ResourceCollections	AssessmentNo	CollectionsFacility	ResourceNotes	RecordingEvents	Reports	CountyName	Maps	Address	PLSS	UTM
P-20-002306	CA-MAD-002549H	Madera Canal; Madera Irrigation District, MID; MID Lateral 6 2 Segments		Resource Name - Madera Canal; Madera Irrigation District, MID; ; Resource Name - MID Lateral 6 2 Segments	See also 20-002393, See also 20-000402, See also 20-000018, Subsumes 20-002558, Subsumes 20-002431, Subsumes 20-003019, Subsumes 20-003105	Structure	Historic	Survey	AH06, HP20	Not for publication	No			Multiple resources included segments of the Madera Canal and portions of the ancillary Madera Irrigation District canals in a way that made it necessary to subsume all records related to the Madera Canal and Madera Irrigation District in one record.	1992 (Unknown, JRP Historical Consulting Services). 2000 (Kanana Hollensby Drayton, Caltrans). 2005 (G. Roark, C. Fish, Jones & Stokes). 2005. 2009 (Joseph Freeman and Rebecca Flores, JRP Historical Consulting, LLC). 2013 (Mark Kile, Culturescape). 2014 (R. Scott Baxter, ESA). 2016 (Brandon Patterson, Circa and Associates). 2016 (K. Austin, Applied Earthworks, Inc.). 2016 (Mark Kile, Culturescape). 2016 (Mark Kile, Culturescape). 2016 (HDR EOC, Inc., HDR EOC, Inc.). 2016 (Katherine Anderson, ESA)	MA-01253, MA-01254, MA-01257, MA-01266, MA-01267, MA-01287	Madera	Berenda, Bickle, Bonita Ranch, Chowchilla, Daulton, Firebaugh NE, Friant, Gravelly Ford, Gregg, Herndon, Kismet, Lanes Bridge, Little Table Mountain, Madera, Millerton Lake West		T11S R20E Sec 15 MDBM, T11S R20E Sec 16 MDBM, T11S R20E Sec 21 MDBM, T11S R20E Sec 22 MDBM, T11S R20E Sec 23 MDBM, T11S R19E Sec 1 MDBM, T10S R19E Sec 19 MDBM, T10S R18E Sec 30 MDBM, T10S R18E Sec 14 MDBM, T10S R19E Sec 15 MDBM, T10S R17E Sec 16 MDBM	Zone 10 750367mE 4105466mN NAD83 (Lateral 32 9-9 9 Head); Zone 10 750146mE 4105453mN NAD83 (Lateral 32 2-9 9W 0 1 Head); Zone 10 749758mE 4105400mN NAD83 (Lateral 32 2-9W 1 9 Head); Zone 10 747958mE 4105349mN NAD83 (Lateral 32 2-9 9W 1 5 Head); Zone 10 747125mE 4105329mN NAD83 (Lateral 32 2-9 9W 2 0 Head); Zone 10 750455mE 4103521mN NAD83 (Downstream lateral 32 2 Basin); Zone 10 750457mE 4103249mN NAD83 (Lateral 32 2 Basin Pump Station); Zone 10 752013mE 4101484mN NAD83 (Lateral 32 2-13 2 Head); Zone 10 754842mE 4099027mN NAD83 (Lateral 24 2-17 0 Head); Zone 10 753535mE 4094020mN NAD83 (Lateral 24 2-17 0-2 3 Head); Zone 10 754545mE 4091056mN NAD83 (Lateral 24 2-19 5 Head); Zone 10 760341mE 4103561mN NAD83 (Lateral 24 2 Head); Zone 10 759729mE 4101939mN NAD83 (Lateral 24 2-8 9 Head); Zone 10 759729mE 4101698mN NAD83 (Lateral 24 2-9 0 Head); Zone 10 759959mE 4098251mN NAD83 (Lateral 24 2-13 2 Head); Zone 11 234125mE 4086366mN NAD83 (Lateral 6 2-14 5 Head); Zone 11 234316mE 4086617mN NAD83 (Lateral 6 2-9 2 Head); Zone 11 242131mE 4087780mN NAD83 (Lateral 6 2-9 2 Head); Zone 11 238675mE 4085391mN NAD83 (Lateral 6 2-9 2-5 0 Head); Zone 11 240516mE 4084769mN NAD83 (Lateral 6 2-9 2-3 2 Head)
P-20-002927	CA-MAD-002671H	Borden Chinese Cemetery		Resource Name - Borden Chinese Cemetery		Site	Prehistoric; Historic	Survey	HP43	Not for publication	Rp				2011 (David Lanier and Philip Valko)	MA-01137	Madera	Madera		T11S R18E Sec 32 MDBM	Zone 764100mE mN NAD83 (Northing: 4090034; No zone listed. NAD not listed)

Resource Detail: P-20-002827

SSJVIC Record Search 19-168

Identifying information

Primary No.: P-20-002827
Trinomial: CA-MAD-002671H
Name: Borden Chinese Cemetery
Other IDs:

Type	Name
Resource Name	Borden Chinese Cemetery

Cross-refs:

Attributes

Resource type: Site
Age: Protohistoric, Historic
Information base: Survey
Attribute codes: HP40 (Cemetery)
Disclosure: Not for publication
Collections: No
Accession no(s):
Facility:

General notes

Recording events

Date	Recorder(s)	Affiliation	Notes
8/22/2011	David Laner and Philip Vallejo		

Associated reports

Report No.	Year	Title	Affiliation
MA-01137	2011	Archaeological Survey Report State Route 99 and Avenue 12 Interchange Project, City of Madera, Madera County, California	California Department of Transportation

Location information

County: Madera
USGS quad(s): Madera
Address:
PLSS: T11S R18E Sec. 32 MDBM
UTMs: Zone 764100mE mN NAD83 (Northing: 4090034; No zone listed; NAD not lis

Management status

Database record metadata

	Date	User	
Entered:	3/29/2012	ssjvic	
Last modified:	8/12/2014	user	
IC actions:	*Date*	*User*	*Action taken*
	3/29/2012	ssjvic	Entered Primary: CG
	4/9/2012	ssjvic	Mapped Resource: CG
	8/12/2014	user	Entered location: MMB

Record status: Database Complete