



REGULAR MEETING OF THE BOARD OF DIRECTORS

District Office, 18966 Ferretti Road

Groveland, CA 95321

(209) 962-7161 www.gcsd.org

AGENDA

March 14, 2023

10:00 a.m.

BOARD MEMBERS AND PUBLIC MAY ATTEND IN PERSON AT DISTRICT OFFICE OR VIA VIDEO CONFERENCE AS DETAILED BELOW:

Under the Governor's Executive Order N-25-20 and Order N-29-20, members of the Board of Directors can participate by videoconference or teleconference. Accessibility Requirements, if you need swift special assistance during the Board meeting, please call (209) 962-7161. The District office is open to the public at this time from 9am to 4:30pm Monday through Thursday and 9am to 4pm on Friday (Closed between 12pm-2pm). All members of the public seeking to observe and/or to address the GCSB Board may participate in the meeting telephonically or otherwise electronically in the manner described below:

HOW TO OBSERVE AND PARTICIPATE IN THE MEETING:

Computer, tablet or smartphone: Watch the live streaming of the meeting from a computer by navigating to <https://us02web.zoom.us/j/7688070165> using a computer with internet access that meets Zoom's system requirements

Telephone: Listen to the meeting live by calling Zoom at (253) 215-8782 or (301) 715-8592. Enter the Meeting ID# 279-281-953 followed by the pound (#) key. More phone numbers can be found on Zoom's website at <https://zoom.us/u/abb4GNs5xM> if the line is busy.

Mobile: Log in through the Zoom mobile app on a smartphone and enter Meeting ID# 279-281-953.

HOW TO SUBMIT PUBLIC COMMENTS:

Written/ Read Aloud: Please email your comments to board@gcsd.org, write "Public Comment" in the subject line. In the body of the email, include the agenda item number and title, as well as your comments. If you would like your comment to be read aloud at the meeting (not to exceed three minutes at staff's cadence), prominently write "Read Aloud at Meeting" at the top of the email.

Telephonic / Electronic Comments: During the meeting, the Board President or designee will announce the opportunity to make public comments by voice and in writing, and identify the cut off time for submission of written comments. Comments can be emailed in advance of the Board meeting and up to the time of Board consideration of the item during the meeting. Send email to board@gcsd.org, and write "Public Comment" in the subject line. Once you have joined the Board meeting online using Zoom, public comments can also be submitted using the Chat function while in the Zoom Meeting. In the body of the email or Chat, include the agenda item number and its title, as well as your comments. The Board President will also public comment to be made verbally prior to consideration of each agenda item, and will explain the procedure for making verbal comments during the meeting. Once the public comment period is closed, comments timely received in advance of consideration of the agenda item will be read aloud prior to Board action on the matter. Comments received after the close of the public comment period will be added to the record after the meeting.

ACCESSIBILITY INFORMATION:

Board Meetings are accessible to people with disabilities and others who need assistance. Individuals who need special assistance or a disability-related modification or accommodation (including auxiliary aids or services) to observe and/or participate in this meeting and access meeting-related materials should contact Rachel Pearlman, Board Secretary, at least 48 hours before a regular meeting at (209) 962-7161 or rpearlman@gcsd.org. Advanced notification will enable the District to swiftly resolve such requests to ensure accessibility.

AGENDA MATERIAL:

Physical copies of agenda material will not be available at the meeting. All agenda material can be accessed on the District Board Meeting Webpage at <https://www.gcsd.org/board-meetings-meeting-documents>. Physical copies can be obtained through the District office once made available.

PUBLIC RECORDS:

Public records that relate to any item on the open session agenda for a meeting are available for public inspection. Those records that are distributed after the agenda posting deadline for the meeting are available for public inspection at the same time they are distributed to all or a majority of the members of the Board. The Board has designated the District's website located at <https://www.gcsd.org> as the place for making those public records available for inspection. The documents may also be obtained by calling the District office.

ALL AGENDA MATERIAL ARE AVAILABLE ON THE DISTRICT WEBSITE AT WWW.GCSD.ORG OR MAY BE INSPECTED IN THE GROVELAND COMMUNITY SERVICES DISTRICT OFFICE AT 18966 FERRETTI ROAD, GROVELAND, CALIFORNIA

Any person who has any questions concerning this agenda may contact the District Secretary. In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the District at 209-962-7161. Notification 48 hours prior to the meeting will enable the District to make reasonable arrangements to ensure accessibility to this meeting. (28FR35.102-35.104 ADA Title 11)



MEETING AND TELECONFERENCE AGENDA

March 14, 2023
10:00 a.m.

Call to Order

Pledge of Allegiance

Roll Call of Board Members

Nancy Mora, President
Janice Kwiatkowski, Vice President
John Armstrong, Director
Spencer Edwards, Director
Robert Swan, Director

1. Authorization from the Board of Directors to Permit Director Kwiatkowski to Attend Meeting Remotely Under AB 2449 "Emergency Circumstances"

2. Approve Order of Agenda

3. Public Comment

Members of the public are appreciated for taking the time to attend this meeting and provide comments on matters of District business. Public comments are subject to a 3-minute time limit; 10 minutes on an individual topic. Although no action can be taken on items not listed on the agenda, please know we are listening carefully to your comments.

4. Information Items

Brief reports may be provided by District staff and/or Board members as information on matters of general interest. No action will be taken by the Board during Reports, however items discussed may be recommended for discussion and action on a future agenda. Public comments will be taken after each report is provided.

- A. Staff Reports
 - i. Fire Department Report
 - ii. CERT Report
 - iii. General Manager's Report
 - iv. Operations Manager's Report
 - v. Administrative Services Manager's Report
- B. Proclamations
 - i. None

5. Consent Calendar

Consent Calendar items are considered routine and will be acted upon by one motion. There will be no separate discussion on these items unless a member of the Board, Staff or a member of the Public requests specific items be set aside for separate discussion.

- A. Approve Minutes from the February 14, 2023, Regular Meeting
- B. Approve Minutes from the March 7, 2023, Board Workshop
- C. Accept February 2023 Payables
- D. Waive Reading of Ordinances and Resolutions Except by Title

6. Old Business

(Items tabled or carried forward from a previous meeting to be considered on this agenda. The Board of Directors intends to consider each of the following items and may take action at this meeting. Public comment is allowed on each individual agenda item listed below, and such comment will be considered in advance of each Board action)

- A. None

7. Discussion and Action Items

The Board of Directors intends to consider each of the following items and may take action at this meeting. Public comment is allowed on each individual agenda item listed below, and such comment will be considered in advance of each Board action.

- A. Adoption of a Resolution Awarding a Consulting Services Agreement to NBS Consulting to Perform a Water and Sewer Rate Study
- B. Designating a Board Member to Serve on the Tuolumne Stanislaus Regional Water Management JPA Board of Directors and to Appoint a Staff Member to Tuolumne Stanislaus Watershed Advisory Committee
- C. Adoption of a Resolution Approving the Environmental Documents for the Groveland Community Services District Drought Improvements Project

8. Adjournment

ALL AGENDA MATERIAL ARE AVAILABLE ON THE DISTRICT WEBSITE AT WWW.GCSD.ORG OR MAY BE INSPECTED IN THE GROVELAND COMMUNITY SERVICES DISTRICT OFFICE AT 18966 FERRETTI ROAD, GROVELAND, CALIFORNIA

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**Groveland Community Services District
Fire Department / CALFIRE**

18966 Ferretti Road Groveland, CA 95321

Staff Report
March 1, 2023

To: Board of Directors

From: Mario Torres, Battalion Chief
By: Travis Chunn, Fire Captain

Subject: Monthly Activity Report – February 1, 2023 - February 28, 2023

Operations:

On February 28, 2023, annual ladder testing was performed on all GCSD ladders by Ross' Ladder Service. As part of the service, the halyards were replaced on all extension ladders. All the ladders passed the testing.





Apparatus and Equipment:

Apparatus	Description	Status
Engine 781	2009 Pierce Contender	In Service
Engine 787	2000 Freightliner FL112	In Service
Engine 783	1995 International Model 15	In Service
Utility 786	2008 Chevrolet 2500	In Service

Training:

In addition to our monthly Emergency Medical Technician (EMT) curriculum and engine company performance standards, Battalion personnel received the following specialized training:

- Narcan & Epinephrine is now on Engine 781
- FAE Patrick Cohen attended Common Passenger Vehicle Rescue Class
- FAE Rene Herrera attended Continued Professional Training Class

Fire Department News:

On February 20, 2023, Optimized Plumbing & Piping removed the 50-gallon tank water heater at station 78, and it was replaced by a tankless water heater. We are not running out of hot water in the evenings anymore.



Fire Chief's Report
March 1, 2023
Page 4 of 5

Station 78 received some damage due to the large amount of snow on the roof. As the snow slid off the roof, it has damaged the gutters in several locations.





MONTH - February 2023

STATION 78

Alarm Sounding	1
Odor Investigation	0
Debris Fire	0
Medical Aid	27
Fire Menace Standby	1
Fire Other	0
Haz Mat	0
Landing Zone	0
Plane/Heli Crash	0
Public Assist	3
Smoke Check	0
Structure Fire	0
Commercial Structure Fire	0
Vegetation Fire	0
Vehicle Accident	1
Vehicle Accident/Pin in	0
Vehicle Fire	0
TOTAL	33

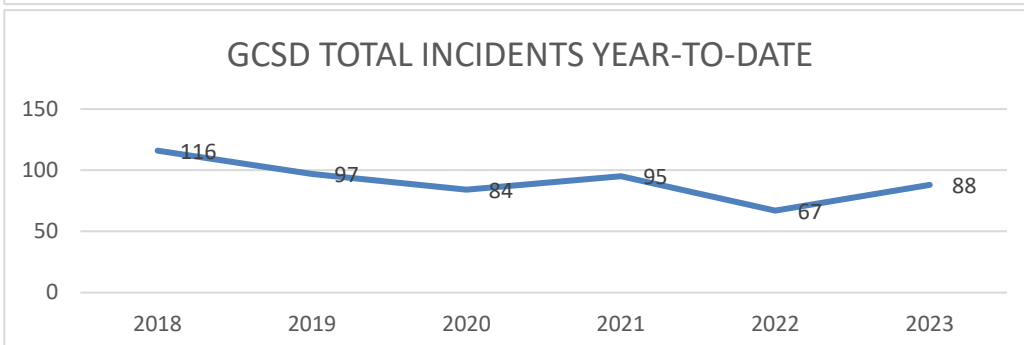
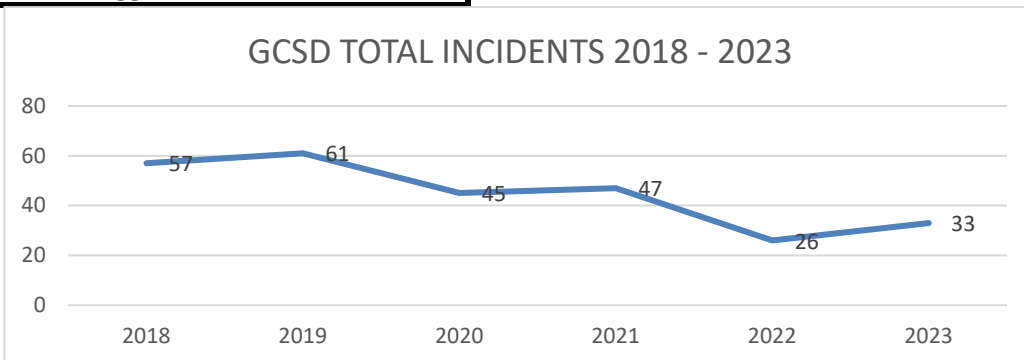


Auto Aid	Given
Tuolumne County	1
INC #2076 Medical Aid Smith Station Rd.	
TCFD E-631: 22 Calls	

ALS	
Yes	No
18	10

(32 calls in GCSO district, 1 call in Tuolumne County)

Last Call Logged Run # TCU 002739



CERT Groveland/Big Oak Flat/Moccasin

Groveland Community Services District • 18966 Ferretti Road, Groveland CA 95321



Groveland, California

Report to GCSD Board for March 2023

- GCERT has 25 participants, 21 inquiring people and 12 fully certified members.
- GCERT has notified FD that our Firefighter Rehab vehicle is operational. It has been outfit with all the necessary equipment to Go Live. (Funded by Adventist Health Grant) GCERT is also available for Traffic Control deployment.
- GCERT was deployed at the request of TC OES to help operate the warming center/shelter in conjunction with the Red Cross and TC at the Groveland Resilience Center. It was open 4+ days on a 24/7 basis.
- GCERT received a \$5,000 grant from Adventist Health and has \$3,000 of our requested \$5,000 grant from the Tuolumne County Health Care and Safety Coalition to add to our response resources. This is for Medical Supplies and Traffic Control Items.

We have ordered and received the items covered by the grants. We will be creating a cloud-based inventory of supplies and equipment accessible to both GCSD & CERT.

- GCERT Len Otley is our Training Officer. The next training is April 21, 22, 23 in TC Emergency Operations Center. We have 4-6 candidates enrolled.
- GCERT is conducting a First Aid/AED/CPR training March 18 9am to 4p in the Resilience Center.
- GCERT assisted the PMLA Safety Committee in developing evacuation maps for PML and the Greater Groveland area. They have been approved by TCSO and TCOES. These are ready to publish on websites.
- GCERT is planning regular meetings on the last Saturday of each odd month:
5/27, 7/29, 9/30, 11/25
- GCERT is planning a CHP conducted traffic control workshop March 25th 9am to noon. We will be using the GCSD Board Room and Parking lot for this event.
- Groveland CERT will partner with the Pine Mountain Lake Safety Committee to offer at least one Fire Preparedness Workshop in Q2. Between the 3 workshops in 2022, nearly 100 local folks have participated.
- The GrovelandNET is a community radio communications network utilizing FRS radios. These are about \$30 each, require no license, would be in typical use throughout Groveland/BOF. Additionally, a few GMRS would be used to communicate outside the area on to Sonora OES using repeaters. These are more expensive, require a license & training. GCSD would implement a Base Station.

3/9/2023 3:21 PM

GrovelandCERT@gmail.com

FB – CERT – Groveland Area Community Emergency Response Team
ND – CERT – Groveland Area Community Emergency Response Team

**Operations and Maintenance Report
February 2023**

Operations Department

Wastewater Treatment Division

Influent Totals	
Total	4.47
Average	0.16
High	0.20
Low	0.13

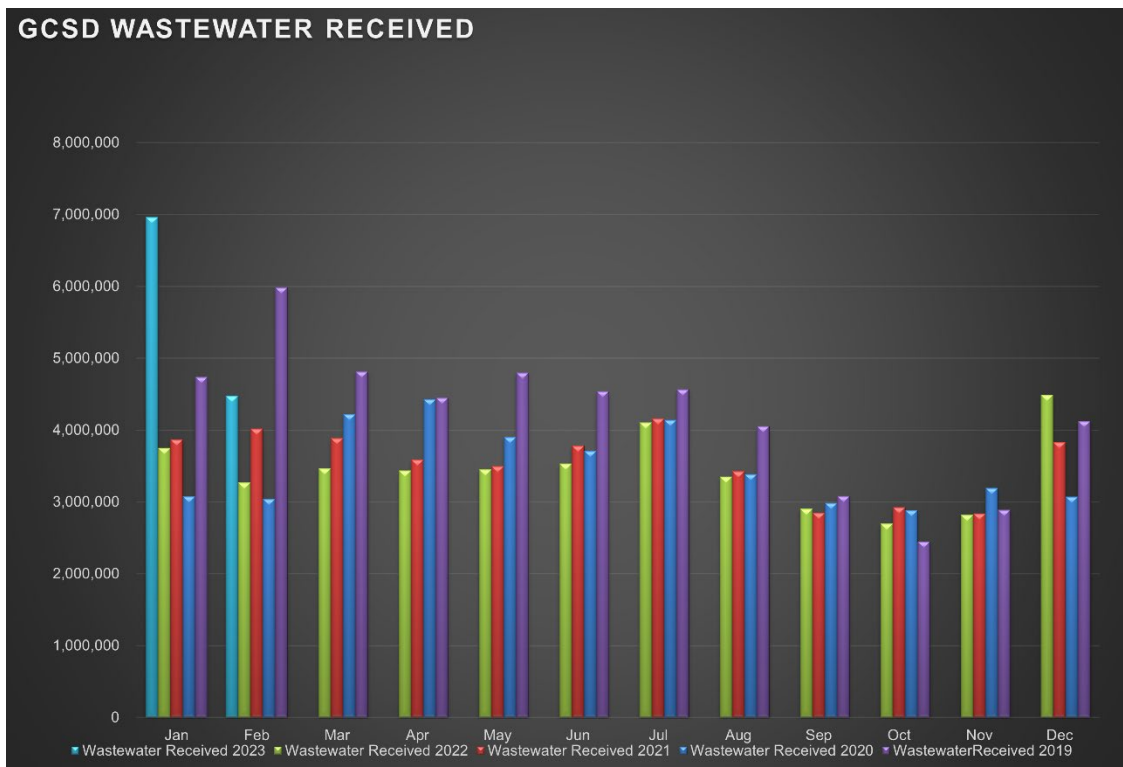
Effluent Totals	
Total	4.62
Average	0.17
High	0.21
Low	0.14

Reclamation Totals	
PML	
Spray Fields	
PML Season Total	
Spray Field Season Total	

Wasting Totals	
Total Inches	212
Total Pounds	4749
Active Accounts	1565

STP Rainfall Totals by Year During Current Month (Inches)					
Season	2023	2022	2021	2020	2019
	49.18	4.96	0.78	2.32	0.01
	High 1.44	High 0.55	High 0.94	High 0.01	High 2.02

Charted Historical Monthly Influent Totals



Wastewater Treatment Division

Routine Tasks

- Took weekly Bac-Ts and BOD of the Chlorine Contact Chamber (CCC) and sent into Alpha Lab for testing.
- Completed monthly Wastewater Report and sent to the State Water Resources Control Board
- Completed daily rounds and Lab.

Water Treatment Division

Routine Tasks

- Submitted monthly Water Treatment Report to State Water Resources Control Board
- Submitted monthly Conservation Report to State Water Boards
- Performed weekly checks and calibrations on all analyzers at 2G, BC, and AWS
- Performed monthly UV calibrations at 2G and BC.
- Took weekly Treatment Plant samples and sent them into Alpha Lab
- Monitored/sampled Distribution Tanks as needed.

Maintenance Department

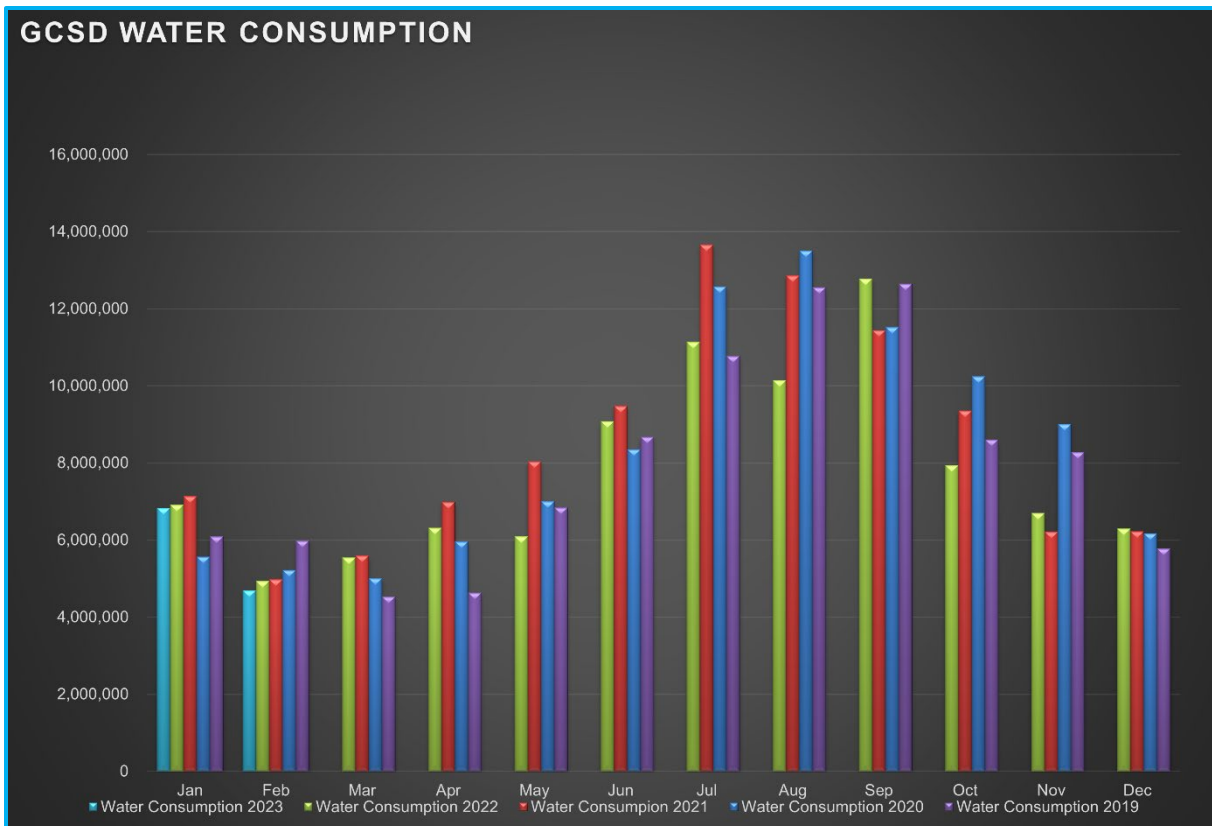
Water Distribution System Division

Meter Related Services	Total
Check / Repair Meters	5
Water Meters Installed	1
Monthly Meter Restrictions	0
Meter Lock offs	
Meter Changeouts	0
Tenant Final Reads	1
Re-Reads	25
Meter Turn-Offs	6
Meter Turn-Ons	6
Meter Tests	0
Winterize Meter	0
Total Meter Related Issues	178

Billed Consumption (Gallons)	2023	2022	2021
Residential	4,334,123	4,687,122	4,974,689
Commercial	355,441	233,024	N/A
Total	4,689,564	4,920,146	4,974,689

Active Accounts	3265
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Charted Historical Monthly Water Consumption



Maintenance and Repair Data

Description	Total
Water Main Leaks / Repairs	0
Water Service Line Leaks / Repairs	0
Fire Hydrant Repairs / Replacements	0
Number of Hydrants Flushed	9
Number of Dead-Ends Flushed	1
Water Valves Exercised	18
GIS Points	0

Description	Gallons
Flushing for Water Quality	19,850
Water Loss Due to Leaks / Breaks	0

After-Hours Calls (Hours)				
Water	Sewer	Park	Other	Total
10	3	1	3	17

Maintenance and Repair

- **Routine Tasks**
 - Read all District Water Meters
 - Customer Service Calls (Low / High Pressures, No Water, Turn-Ons / Turn-Offs, Etc.)
 - Underground Service Alert (USA) Utility Marking Program
 - Weekly Pump Station Inspections at Tank 2, Tank 4, Tank 5 (Buildings, Tanks, Motors, Pumps, Drives, Communications, Generators, and Auxiliary Equipment)
 - Lock offs for non-payment.

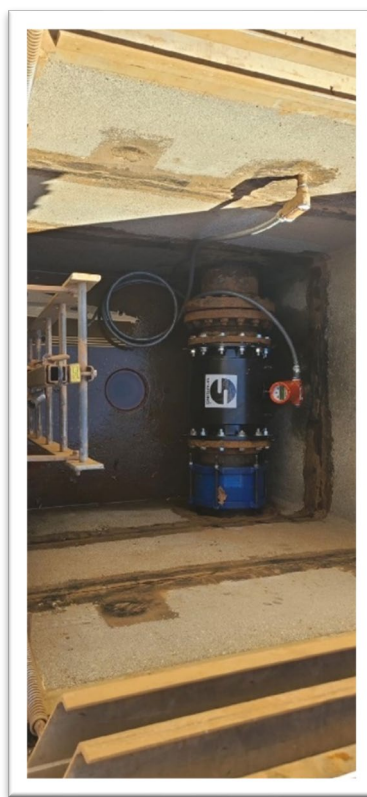
- **Tanks and Pump Stations**

- **Distribution System**
 - Water Distribution System Flushing, Pine Mountain Dr, x- Elder Ln subsequent work by PG&E.
 - Fire Hydrant repair, Dunn Ct.
 - Replace ARV boxes on Big Creek Transmission main.

Highlands Pump Station Generator Replacement



Second Garrote Finished Water Flow Valve Replacement



Wastewater Collection System Division

Description	Total
Manholes Inspected	96
GIS Points	0
Customer Complaint	0
Odor Complaints	0

Description	Total
Flushing/Jetting (Feet)	1050
Video Inspection (Feet)	357

Description	Total
Sanitary Sewer Spills (SSO)	0
SSO Gallons Spilled	0

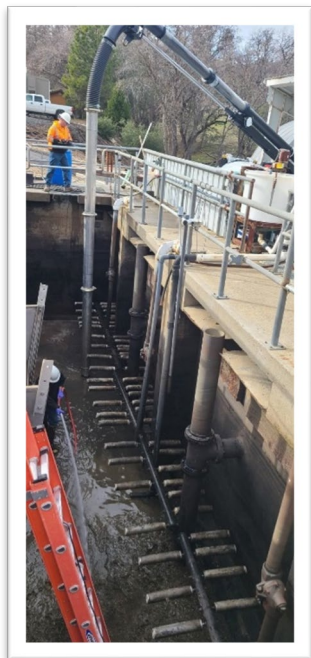
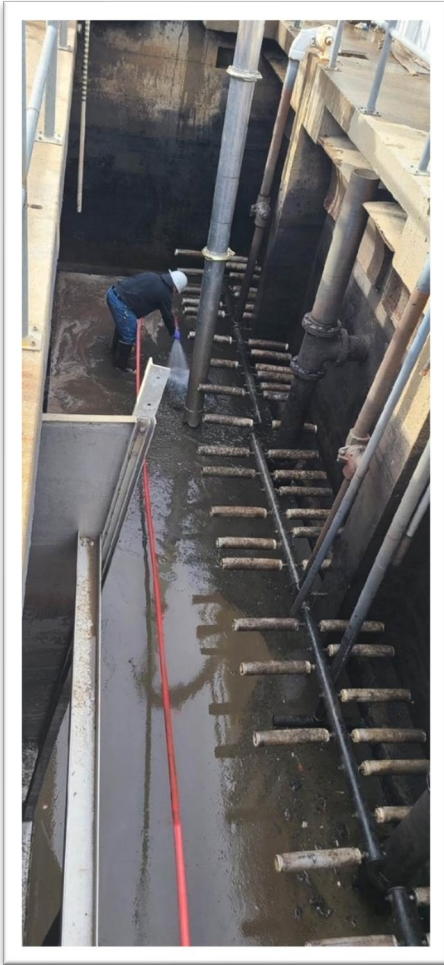
Maintenance and Repair

- **Routine Tasks**
 - Weekly lift station site inspections (PMCS)
 - Added degreaser and odor control to lift stations.

- **Lift Stations**
 - Cleaned: LS2, LS13, LS14, LS15, LS16
 - Lift Station 7 – Remove and Replace faulty soft start controller.
 - Lift Station 12 – Remove and Replace cabinet heater.

- **Collection System**
 - Flushed/Jetted gravity sewer line areas.
 - Groveland, Bass Pond, Twin Pines Easement Manhole inspections.

Wastewater Treatment Plant Digester Cleaning



Parks Division

Maintenance and Repair

- **Mary Laveroni Community Park**
 - Landscape Maintenance
 - Water line leak repair near restrooms
 - Daily trash and bathroom maintenance

- **Ballfield & Dog Park**

General Maintenance Division

Maintenance By Department

- **Operations Department**
 - 2G Water Treatment Plant
 - Installed new Booster #1 control valve and surge valve.
 - Replace 2 flow meters (Chlorine contact tank and finish water)
 - Big Creek Water Treatment Plant
 - AWS
 - Repaired backwash filler.
 - STP
 - Replace 1 blower motor. Fabricate and install new safety guard.
 - Clean and lubricate 1 blower motor.
 - Replace both blower motor check valves.

- **Maintenance Department**
 - Equipment
 - Monthly inspect and run at operating temperatures...
 - Rain for Rent, Sullair, Vactron, Cement mixer, Light Tower, STP generator, Dunn Ct Generator, AWS Generator, Standby Generator, Highlands Generator.
 - R&R parts washer motor. (Warranty)
 - 80001: Diagnose Hotsy pressure washer. Repairs made for faulty ignitor.

 - Vehicles
 - 60523: 90 Day Inspection
 - 60524: 90 Day Inspection
 - 79783: 90 Day Inspection
 - 70087: 90 Day Inspection

- 70981: 90 Day Inspection
- 79783: 90 Day Inspection
- Buildings & Yard
 - General yard cleanliness.
 - Vegetation management.

Contracted Work

- Day Generator Service
 - Generator upgrades at LS1, LS2, LS7, LS8, LS9, LS13, Highlands PS, Big Creek TP, Second Garrote TP, and Admin.
- Moyle Excavation
 - Sanitary Sewer Replacement CIP project continuing

Workplace Safety and Training

- Routine Safety Meetings
 - Daily Tailgate Meetings
 - Weekly Safety Meetings
 - Weekly Security Checks
 - Weekly Vehicle Inspection
- Cla-Val Valve Training (C&D/Maintenance)

1

**REGULAR MEETING OF THE BOARD OF
DIRECTORS GROVELAND COMMUNITY SERVICES
DISTRICT GROVELAND, CALIFORNIA
February 14, 2023
10:00 a.m.**

The Board of Directors of Groveland Community Services District met in regular session on the above mentioned date with Directors Nancy Mora President, John Armstrong, Spencer Edwards, and Bob Swan being present. Also present was Administrative Services Manager Jennifer Flores, Board Secretary Rachel Pearlman, Operations Manager Luis Melchor, and General Manager Pete Kampa.

Call to Order

Director Mora called the meeting to order at 10:00am.

Director Kwiatkowski absent.

Approve Order of Agenda

Motion

Director Swan moved, seconded by Director Armstrong, and the motion passed by roll call to approve the order of the agenda with the exception of moving Item 6D to the top of the Discussion and Action Items.

Ayes: Director Mora, Armstrong, Edwards, and Swan

Absent: Director Kwiatkowski

Public Comment

Board Secretary, Rachel Pearlman read an email to the Board of Directors from a member of the public regarding Groveland Community Services District's Social Media account.

Information Items

Brief reports may be provided by District staff and/or Board members as information on matters of general interest. No action will be taken by the Board during Reports, however items discussed may be recommended for discussion and action on a future agenda. Public comments will be taken after each report is provided.

Staff Reports

Fire Department Report
CERT Report
General Manager's Report
Operations Manager's Report
Administrative Services Manager's Report

Proclamations

Recognition of Adam Ahlswede for his 3 Years of Service to the Groveland Community Services District

Recognition of Jennifer Donabedian for her 12 Years of Service to the Groveland Community Services District

Consent Calendar

Consent Calendar items are considered routine and will be acted upon by one motion. There will be no separate discussion on these items unless a member of the Board, Staff or a member of the Public requests specific items be set aside for separate discussion.

Approve Minutes from the January 10, 2023, Regular Meeting

Approve Minutes from the January 31, 2023, Special Meeting

Accept January 2023 Payables

Consideration of Nomination of Candidates for the Board of Directors of California Special Districts Association and Special District Risk Management Authority

Waive Reading of Ordinances and Resolutions Except by Title

Motion

Director Armstrong moved, seconded by Director Edwards and the motion passed by roll call to approve items 4A, B, C and E from the consent calendar.

Ayes: Directors Mora, Armstrong, Edwards, and Swan

Absent: Director Kwiatkowski

Motion

Director Swan moved, seconded by Director Edwards and the motion passed by roll call to nominate General Manager Peter Kampa for the Board of Directors of California Special Districts Association.

Ayes: Directors Mora, Armstrong, Edwards, and Swan

Absent: Director Kwiatkowski

Motion

Director Armstrong moved, seconded by Director Edwards and the motion passed by roll call to approve resolution 11-2023 nominating Director Robert Swan as a candidate for the election to the Special District Risk Management Authority Board of Directors.

Ayes: Directors Mora, Armstrong, Edwards, and Swan

Absent: Director Kwiatkowski

Old Business

(Items tabled or carried forward from a previous meeting to be considered on this agenda. The Board of Directors intends to consider each of the following items and may take action at this meeting. Public comment is allowed on each individual agenda item listed below, and such comment will be considered in advance of each Board action).

Adoption of a Resolution Approving the Execution and Delivery of a Lease Agreement with Municipal Financial Corporation, and Authorizing Certain Actions in Connection Therewith

Motion

Director Swan moved, seconded by Director Armstrong and the motion passed by roll call to adopt Resolution 06-2023 approving the execution and delivery of a Lease Agreement with Municipal Financial Corporation and authorizing certain actions in connection therewith.

Ayes: Directors Mora, Armstrong, Edwards, and Swan

Absent: Director Kwiatkowski

Discussion and Action Items

The Board of Directors intends to consider each of the following items and may take action at this meeting. Public comment is allowed on each individual agenda item listed below, and such comment will be considered in advance of each Board action.

Adoption of a Resolution Authorizing the Award of the Headworks Improvements Project to Sierra Mountain Construction for a Bid Amount of \$1,197,000.00 and to Authorize the General Manager to Sign an Agreement on Behalf of the District

Motion

Director Armstrong moved, seconded by Director Swan and the motion passed by roll call to approve resolution 07-2023 authorizing the award of the Headworks Improvements Project Construction Contract to Sierra Mountain Construction, Inc. for a bid amount of \$1,197,000.00 and to authorize the General Manager to sign Contract Documents on behalf of the District.

Ayes: Directors Mora, Armstrong, Edwards, and Swan

Absent: Director Kwiatkowski

Adoption of a Resolution Approving a Policy Regarding Assembly Bill 2449 which Amends Requirements of the Brown Act Relating to Teleconference Participation

Motion

Director Armstrong moved, seconded by Director Edwards and the motion passed by roll call to approve Resolution 08-2023 approving a policy regarding Assembly Bill 2449 amending the requirements of the Brown Act relating to teleconference participation.

Ayes: Directors Mora, Armstrong, Edwards, and Swan

Absent: Director Kwiatkowski

Adoption of a Resolution Authorizing the General Manager to Enter into an Agreement with Tuolumne Utility District for Mutual Assistance Agreement

Motion

Director Swan moved, seconded by Director Armstrong and the motion passed by roll call to approve Resolution 09-2023 authorizing the General Manager to enter into a Mutual Assistance Agreement with Tuolumne Utility District.

Ayes: Directors Mora, Armstrong, Edwards, and Swan

Absent: Director Kwiatkowski

Adoption of a Resolution Commending CalFire Captain Dave Donabedian for his Service and Accomplishments While Serving the Groveland Community Services Fire Department

Motion

Director Armstrong moved, seconded by Director Edwards and the motion passed by roll call to approve Resolution 10-2023 commending Dave Donabedian for his efforts and accomplishments while serving the Groveland Community Services Fire Department.

Ayes: Directors Mora, Armstrong, Edwards, and Swan

Absent: Director Kwiatkowski

Presentation Regarding Tuolumne County Transportation Council (TCTC) Evacuation Needs Assessment and Communication Strategies Report

Motion

No action taken.

Discussion and Consideration Regarding District Billing for Outside Emergency Responses

Motion

No action taken.

Adjournment

Meeting adjourned at 12:22pm.

APPROVED:

Nancy Mora, Board President

ATTEST:

Rachel Pearlman, Board Secretary

DRAFT

**SPECIAL MEETING OF THE BOARD OF
DIRECTORS GROVELAND COMMUNITY SERVICES
DISTRICT GROVELAND, CALIFORNIA
March 7, 2023
10:00 a.m.**

The Board of Directors of Groveland Community Services District met in special session on the above mentioned date with Directors Nancy Mora President, Janice Kwiatkowski Vice President, and Spencer Edwards and Robert Swan being present. Also present was Administrative Services Manager Jennifer Flores, Operations Manager Luis Melchor, and General Manager Pete Kampa.

Call to Order

Director Edwards called the meeting to order at 10:03am.

Director Armstrong is absent.

Authorization from the Board of Directors to Permit Director Kwiatkowski to Attend Meeting Remotely Under AB 2449 "Emergency Circumstances"

Motion

It was moved by Director Swan and seconded by Director Edwards and the motion passed by roll call to permit Director Kwiatkowski to attend the meeting remotely under AB 2449 "Emergency Circumstances".

Discussion and Action Items

The Board of Directors intends to consider each of the following items and may take action at this meeting. Public comment is allowed on each individual agenda item listed below, and such comment will be considered in advance of each Board action.

Presentation of the 2nd Quarter 2021-2022 FY Financial Statement

Motion

No action required.

Update Report on the Status of Current and Ongoing District Infrastructure Projects

Motion

No action required.

Review, Orientation and Discussion of Updating the Water Supply Contracts with the City and County of San Francisco and With the Modesto and Turlock Irrigation Districts

Motion

No action required.

Adjournment

Meeting adjourned at 11:47am.

APPROVED:

Nancy Mora, Board President

ATTEST:

Rachel Pearlman, Board Secretary

DRAFT



ACCOUNTS PAYABLE CHECK LISTING

February, 2023
Fiscal Year 22/23
Board Approval Date _____

Accounts Payable Checks



User: dpercoco
Printed: 2/28/2023 11:42:11 AM

Check N	Vendor N	Vendor Name	Check Dat	Committe	Description	Amount
115869	OE3	Operating Engineers Local #3	2/1/2023	True	PR Batch 00001.02.2023 Oper Engin Union Dues	\$426.44
902575	CAL09	CalPers 457 Plan Administrator	2/1/2023	True	PR Batch 00001.02.2023 CalPers Def Comp	\$1,153.85
902576	DCSS	Dept of Child Support Services	2/1/2023	True	PR Batch 00001.02.2023 Wage Garnish Child Support	\$205.03
902577	EDD01	EDD - Electronic	2/1/2023	True	PR Batch 00001.02.2023 SDI - Employee	\$3,345.52
902578	FedEFTPS	Federal EFTPS	2/1/2023	True	PR Batch 00001.02.2023 FICA Employee Portion	\$18,009.90
902579	Orion	Orion Portfolio Solutions	2/1/2023	True	PR Batch 00001.02.2023 Orion 457	\$2,125.00
902580	PER01	Pers - Electronic	2/1/2023	True	PR Batch 00001.02.2023 PERS Employer Exp.-Classic	\$11,437.57
115870	OE3	Operating Engineers Local #3	2/10/2023	True	PR Batch 00002.02.2023 Oper Engin Union Dues	\$426.44
902581	CAL09	CalPers 457 Plan Administrator	2/10/2023	True	PR Batch 00002.02.2023 CalPers Def Comp	\$1,153.85
902582	DCSS	Dept of Child Support Services	2/10/2023	True	PR Batch 00002.02.2023 Wage Garnish Child Support	\$205.03
902583	EDD01	EDD - Electronic	2/10/2023	True	PR Batch 00002.02.2023 State Unemp Ins	\$3,429.13
902584	FedEFTPS	Federal EFTPS	2/10/2023	True	PR Batch 00002.02.2023 Medicare Employer Portion	\$19,524.79
902585	Orion	Orion Portfolio Solutions	2/10/2023	True	PR Batch 00002.02.2023 Orion 457	\$2,125.00
902586	PER01	Pers - Electronic	2/10/2023	True	PR Batch 00002.02.2023 PERS Employer Exp.-Classic	\$11,437.57
22461	AIR01	Airgas USA, LLC	2/14/2023	True	Monthly Cylinder Rental-Helium	\$52.20
22462	Alp03	Alpha Analytical Labs, Inc.	2/14/2023	True	Operations Lab Testing for Water/Sewer for 3 months	\$12,267.00
22463	am01	AM Consulting Engineers, Inc.	2/14/2023	True	Dec.Eng. fees for Sewer \$12K, Drought Water Tank\$11K	\$45,509.00
22464	BLU01	Anthem Blue Cross	2/14/2023	True	Monthly Group Health Ins.	\$28,672.17
22465	ATTLD	AT&T (Internet)	2/14/2023	True	Monthly Fiber Internet-Operations	\$1,189.04
22466	BUR01	Burton's Fire Inc	2/14/2023	True	Water Temp Sensor for Engine #781	\$183.86
22467	CAD01	CALCAD	2/14/2023	True	Misc. GIS project work for November, 2022	\$450.00
22468	CAR06	Carbon Copy Inc.	2/14/2023	True	Monthly Copier Usage	\$45.49
22469	Cle03	CleanSmith Solutions	2/14/2023	True	Disinfection Services & Janitorial -Monthly	\$6,250.00
22470	COL03	Columbia Communications	2/14/2023	True	2/1 to 12/1/23 Pager service contract	\$165.00
22471	CWEA	CWEA	2/14/2023	True	Shane Sawyer/ Andrew Klein CWEA Membership	\$404.00
22472	Data Sup	Data Support Company	2/14/2023	True	24 ea. Furnace filters for WWTP Lab	\$2,039.79
22473	Days	Day's Generator Service, Inc.	2/14/2023	True	Emergency Generator Replacement Project	\$23,750.00
22474	den01	De Nora, Water Technologies INC	2/14/2023	True	Parts for WWTP OSG's, filters, endcaps, o-rings	\$1,538.24
22475	DEP09	Department of Forestry & Fire Protection	2/14/2023	True	July-September Cal Fire Schedule A agreement	\$261,010.91
22476	Doh01	Doherty Tire of Sonora, Inc.	2/14/2023	True	Mount/Dismount 2 tires for Engine 781	\$160.00
22477	DRU01	Drugtech Toxicology Services, LLC	2/14/2023	True	Consortium DOT Tests	\$160.00
22478	EDIS01	E.D.I.S.	2/14/2023	True	Supplemental Health Ins.	\$5,571.27
22479	GCS02	GCSO	2/14/2023	True	GCSO Water Bill	\$2,733.36

Check N	Vendor N	Vendor Name	Check Dat	Committe	Description	Amount
22480	GCS01	GCSO Petty Cash	2/14/2023	True	Fuel	\$40.00
22481	GEN01	General Plumbing Supply	2/14/2023	True	Parts for Water/Sewer Stock	\$1,325.54
22482	GEN02	General Supply Co	2/14/2023	True	Relays and blocks for LS Sensaphone installations	\$2,445.51
22483	gilb01	Gilbert Associates, Inc.	2/14/2023	True	Monthly CPA Services	\$3,800.00
22484	GRA04	Grainger	2/14/2023	True	Ball valves, cables, etc.	\$1,401.95
22485	H&S	H & S Parts and Service	2/14/2023	True	Fittings and hose for Engine #781	\$126.38
22486	HAC01	Hach	2/14/2023	True	Chemicals for WWTP/WTP	\$5,241.85
22487	ICAD01	Industrial Control and Design, Inc.	2/14/2023	True	Invoice #2-material, SCADA program, Inv.2 for SCADA Lic upgr.	\$31,784.29
22488	JSW02	J.S. West Propane Gas	2/14/2023	True	Propane	\$3,306.16
22489	Ken01	Ken Grady Co.	2/14/2023	True	6" Sparling with 15' Cable	\$5,361.63
22490	Kle02	Klein, Andrew	2/14/2023	True	2 ea. Tarps	\$9.68
22491	Met03	Metro Presort	2/14/2023	True	Monthly UB Statement Processing	\$2,021.33
22492	met02	Metropolitan Life Insurance Company	2/14/2023	True	Monthly LTD Insurance	\$432.54
22493	MIS02	MiscoWater	2/14/2023	True	2 ea. Finish CL2 pumps for 2G & BC	\$10,281.47
22494	Mod06	Modesto Windustrial Co.	2/14/2023	True	Fabricate new diffusers, Mildsteel to fabricate polymer mixer	\$4,524.75
22495	MOO01	Moore Bros. Scavenger Co., Inc.	2/14/2023	True	30 Yd. Monthly Debris Box Rental	\$1,268.60
22496	MOT03	Mother Lode Answering Service	2/14/2023	True	Monthly Answering Service	\$351.88
22497	MOU03	Mountain Oasis Water Systems	2/14/2023	True	Bottled Water	\$175.50
22498	neu01	Neumiller & Beardslee	2/14/2023	True	Legal Services	\$218.00
22499	PAT02	Patrick Engineering Inc.	2/14/2023	True	ArcGIS to Cartegraph Data Migration for Oct.31 to Jan. 20, 2023	\$7,490.00
22500	PGE01	PG&E	2/14/2023	True	Monthly Electric Charges	\$982.22
22501	Pin07	Pine Mountain Auto	2/14/2023	True	January 2023 Auto Parts	\$1,469.92
22502	pre02	Presidio Systems, Inc	2/14/2023	True	1 Day CCTV Service. Spot repairs, flow up on Sags	\$2,600.00
22503	SUE01	Ray Suess Insurance & Invst	2/14/2023	True	Retired Members Medical	\$3,799.66
22504	Rig01	Right Now Couriers	2/14/2023	True	Monthly Courier Service	\$780.00
22505	SFPUC	San Francisco Public Utlities Commission	2/14/2023	True	Monthly Water Purchase	\$7,377.14
22506	SIE03	Sierra Motors	2/14/2023	True	Seat covers for Truck #27 & #28	\$638.14
22507	Sna01	Snap-on Attn: Kyle	2/14/2023	True	1 ea. 10 PC Metric Ratchet Wrench set for Truck #26	\$589.88
22508	son12	Sonora Ford	2/14/2023	True	Clutch Assembly for Truck #7	\$343.20
22509	Sprbrk	Springbrook Holding Company LLC	2/14/2023	True	Monthly Civic Pay C/C Pmt Fees	\$1,374.00
22510	Sta15	Staples Credit Plan	2/14/2023	True	Office Supplies	\$104.13
22511	Stream	Streamline	2/14/2023	True	Streamline Web subscription 2/1/2023 to 2/1/2024	\$2,400.00
22512	SWR03	SWRCB	2/14/2023	True	Water Citation for 2G, Annual low Impact Permit Fee	\$615.00
22513	Ter01	Terex USA, LLC	2/14/2023	True	Repair Truck #13 (Versalift) Failed annual boom inspection	\$9,640.02
22514	Tir02	TireHub, LLC	2/14/2023	True	Front tires for Engine 781	\$1,039.55
22515	TMC01	TMC Construction	2/14/2023	True	Tree work around dog park, remove broken/dead limbs	\$7,000.00
22516	TRO01	Trotter Welding & Steel Supply	2/14/2023	True	WWTP polymer pump pipe, Truck #31 repair parts	\$601.91
22517	TUO01	Tuo. Co. Public Power Agency	2/14/2023	True	Monthly Public Power Purchase	\$26,660.57
22518	Tuo14	Tuolumne County Recorder	2/14/2023	True	Monthly subscription- FTP images/Maps- Access to county records	\$243.50
22519	ULI01	ULINE, Attn AR	2/14/2023	True	Janitorial supplies & Supply cabinet	\$866.37
22520	UNI05	Univar Solutions	2/14/2023	True	490 bags of Pure and Natural Salt	\$10,641.88
22521	USA03	Usa Blue Book	2/14/2023	True	2 ea. Pressure relief valves for WTP Finish CL2 pumps	\$408.88
22522	Wells	Wells Fargo Vendor Financial Services, LLC	2/14/2023	True	Monthly Lease on Admin Copier	\$359.28

Check N	Vendor N	Vendor Name	Check Dat	Committe	Description	Amount
22525	UMP01	UMPQUA Bank Comm Card Ops	2/15/2023	True	January Credit Card Purchases	\$10,745.63
22523	Alp03	Alpha Analytical Labs, Inc.	2/24/2023	True	Operations Lab Testing for Water/Sewer	\$350.00
22524	am01	AM Consulting Engineers, Inc.	2/24/2023	True	Nov & Jan Engineering-Groveland Rehab \$12K, Sewer Coll \$9K	\$67,850.54
22526	BLU02	Anthem Blue Cross	2/24/2023	True	Insurance D. Beaudreau	\$1,133.85
22527	ATT02	AT&T	2/24/2023	True	Monthly Cal Net phone service	\$335.54
22528	AT&T Mob	AT&T Mobility (First Net)	2/24/2023	True	Monthly Field Cell Phone fee	\$1,000.94
22530	DEP09	Department of Forestry & Fire Protection	2/24/2023	True	Oct. 1 to Dec. 31, 2022 Schedule a CALFire services	\$294,844.86
22531	Fas02	Fastenal	2/24/2023	True	Paper towels, Off spray, gloves, contractor bags	\$1,120.54
22532	FOO01	Foothill-Sierra Pest Control	2/24/2023	True	Winter Weed Control @ 7 locations	\$2,800.00
22533	GEN01	General Plumbing Supply	2/24/2023	True	2G Flow meter, Fire Hydrant, PVC Parts	\$5,160.16
22534	GRA04	Grainger	2/24/2023	True	Supply line parts-2G Surge protection valve, VAC Truck parts	\$855.01
22535	HAC01	Hach	2/24/2023	True	Sensor cap for WWTP portable reader, LDO probe w/cable	\$1,387.35
22536	Hum02	Humana Insurance Company	2/24/2023	True	Dental Insurance-Monthly	\$3,172.16
22537	Hun02	Hunt & Sons, Inc.	2/24/2023	True	Fuel & Oil	\$9,152.16
22538	met02	Metropolitan Life Insurance Company	2/24/2023	True	Monthly LTD Insurance	\$432.54
22539	Moo07	Moore Bros Property	2/24/2023	True	Clear 20' path of easement @ Big Creek water transmission drain	\$16,280.00
22540	Moy02	Moyle Excavation Inc.	2/24/2023	True	Payment #1 for GCSD Pavement Rehabilitation	\$71,131.25
22541	NBS01	NBS Government Finance Group	2/24/2023	True	Prof Services for Development Impact Fee Study thru 1/31/23	\$560.00
22542	pml01	PML Hardware & Supply Inc.	2/24/2023	True	January Hardware supplies	\$766.85
22543	Pri04	Principal Life Insurance Company	2/24/2023	True	Monthly Vision & Life Insurance	\$649.20
22544	RLR01	R.L. Righetti Enterprises, Inc.	2/24/2023	True	Parts for Engine #781	\$285.86
22545	SUE01	Ray Suess Insurance & Invst	2/24/2023	True	Medicare Reimbursement	\$989.40
22546	Ron01	Rudy, Roni Lynn	2/24/2023	True	Social Media Management	\$2,730.25
22547	Sie17	Sierra Instant Printing	2/24/2023	True	2500 Custom Window envelopes	\$377.13
22548	Sna01	Snap-on Attn: Kyle	2/24/2023	True	Shop Wrench Set	\$574.32
22549	Sol03	Solano Archaeological Services, LLC	2/24/2023	True	2023 GCSD Firebreaks site delineations	\$8,554.41
22550	SWR02	SWRCB	2/24/2023	True	Luis Melchor T2 Renewal	\$60.00
22551	TMC01	TMC Construction	2/24/2023	True	Tree removal for Sewer Project MH3 to MH4	\$2,800.00
22552	Tuo14	Tuolumne County Recorder	2/24/2023	True	8 Satisfaction of Liens	\$160.00
22553	UNI01	Union Democrat	2/24/2023	True	Notice of Intention for GCSD Drought Improvement project ad.	\$288.00
22554	United R	United Rentals North America, Inc	2/24/2023	True	Forklift Rental to unload new Generators	\$4,381.26
22555	Ver03	Verizon Wireless 7706	2/24/2023	True	Monthly Auto Dialers	\$7.82
22556	WRT01	Wallace, Robert & Todd	2/24/2023	True	Groveland Clean CA Implementation thru 1/29/23	\$658.00
22557	WOR01	WorkSmart Automation, Inc.	2/24/2023	True	Repair State Report Computer program	\$555.00
					February Direct Deposit Payroll	\$95,034.68
					Total February Accounts Payable	\$1,236,483.47



BOARD MEETING AGENDA SUBMITTAL

TO: GCSB Board of Directors

FROM: Peter J. Kampa, General Manager

DATE: March 14, 2023

SUBJECT: Agenda Item 7A: Adoption of a Resolution Awarding a Consulting Services Agreement to NBS Consulting to Perform a Water and Sewer Rate Study

RECOMMENDED ACTION:

Staff recommends the following action:

I Move to adopt Resolution 12-2023 Awarding a Consulting Services Agreement to NBS Consulting to Perform a Water and Sewer Rate Study

BACKGROUND:

The last water rate study was conducted in 2015 and the last rate increase in the approved study was implemented in FY 2020/21. The last sewer rate study was conducted in 2018 and the last rate increase in the approved study implemented in FY 2022/23. The Board approved funds to conduct a water and sewer rate study during the approval of the current fiscal year budget. Rate studies are best completed by professional municipal finance consultants to ensure legally compliant and correctly developed cost of service/rate studies and reports.

The District issued a Request for Proposals (RFP) on February 13, 2023 for a combined Water and Sewer Cost of Service/Rate Study. Proposals were due by the close of business on March 6, 2023. The intent of this study is to evaluate the cost of water and sewer service and establish a 5 year rate plan to adequately fund water and sewer utility operations and capital costs while considering intergenerational rate equity to the greatest extent possible.

The District received only one proposal from NBS consulting. Staff has reviewed the proposal against the RFP that was issued, and feels that NBS delivered a very comprehensive proposal that meets the needs of the District.

ATTACHMENTS:

1. Resolution 12-2023
2. Request for Proposal
3. NBS Proposal

FISCAL IMPACT:

The proposal for the water and sewer rate study alone is \$73,650. Staff is recommending that the Board approve the full budgeted amount of \$80,000 to provide a contingency for expenses and portions of the outreach as determined by the complexity of the rate report.

RESOLUTION 12-2023

RESOLUTION OF THE BOARD OF DIRECTORS OF THE GROVELAND COMMUNITY SERVICES DISTRICT AWARDING A CONSULTING SERVICES AGREEMENT TO NBS CONSULTING TO PREFORM A WATER AND SEWER RATE STUDY

WHEREAS, the Groveland Community Services District (herein referred to as the District) is a local government agency formed and operating in accordance with Section §61000 et seq. of the California Government Code; and

WHEREAS, the Board approved funds to conduct a water and sewer rate study during the approval of the current fiscal year budget; and

WHEREAS, the intent of this study is to evaluate the cost of water and sewer service and establish a 5 year rate plan to adequately fund water and sewer utility operations and capital costs while considering intergenerational rate equity to the greatest extent possible; and

WHEREAS, rate studies are best completed by professional municipal finance consultants to ensure legally compliant and correctly developed cost of service/rate studies and reports; and

WHEREAS, the District issued a Request for Proposals (RFP) on February 13, 2023, for a combined Water and Sewer Cost of Service/Rate Study; and

WHEREAS, proposals were due by the close of business on March 6, 2023, the District received only one proposal from NBS consulting; and

WHEREAS, staff has reviewed the proposal against the RFP that was issued, and feels that NBS delivered a very comprehensive proposal that meets the needs of the District.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF GROVELAND COMMUNITY SERVICES DISTRICT to adopt Resolution 12-2023 Awarding a Consultant Services Agreement to NBS Consulting to preform a Water and Sewer Rate Study.

PASSED AND ADOPTED BY THE BOARD OF DIRECTORS OF GROVELAND COMMUNITY SERVICES DISTRICT this 14th day of March 2023 by the following vote:

AYES:

NOES:

ABSENT:

APPROVE:

By: _____
Nancy Mora, Board President

ATTEST:

By: _____
Rachel Pearlman, Board Secretary

CERTIFICATE OF SECRETARY

I, Rachel Pearlman, the duly appointed and acting Secretary of the Board of Directors of the Groveland Community Services District, do hereby declare that the foregoing Resolution was duly passed and adopted at a Regular Meeting of the Board of Directors of the Groveland Community Services District, duly called and held on March 14, 2023.

DATED: _____



REQUEST FOR PROPOSALS (RFP)

Combined Water and Sewer Cost of Service/Rate Study

Deadline for Submission of Proposals:

March 6, 2023, 4:00pm

For an electronic version of this RFP, go to:

www.gcsd.org

(Click on "Bids, RFPs & RFQs")

SECTION A - PROJECT BACKGROUND AND OBJECTIVES

The Groveland Community Services District is requesting proposals from qualified consultants to conduct a comprehensive Combined Water and Sewer Cost of Service and Rate Study. The objective of the study is to independently assess and evaluate the District's existing water and sewer rates and provide recommendations regarding the appropriate rate structure in accordance with law and meeting the needs of the District. The intent of this study is to evaluate the cost of water and sewer service and establish a 5 year rate plan to adequately fund water and sewer utility operations and capital costs while considering intergenerational rate equity to the greatest extent possible.

The District currently provides water, sewer, fire protection, parks and recreation services to the communities of Groveland and Big Oak Flat. At the time of this request for proposal, the District serves 3,263 water customers and 1,565 sewer customers. The District has two classifications of customers, residential and commercial. For water, there are currently 3,168 residential accounts and 95 commercial accounts. For sewer, there are 1,485 residential accounts and 81 commercial accounts. In addition, the District has 238 sewer standby sewer accounts for lots that have been stubbed for sewer, but where no structure currently exists. These lots are charged a \$2 per month stub fee.

The last water rate study was conducted in 2015 and the last rate increase in the approved study was implemented in FY 2020/21. The last sewer rate study was conducted in 2018 and the last rate increase in the approved study implemented in FY 2022/23.

SCOPE OF WORK

The study will be based on a comprehensive review of the District's water and sewer funds and budgets, previous rate study evaluations, capital improvement plans, water and sewer system improvement studies and Capital Improvement Plans (CIP), current rate structure, current usage data and usage profile, planned growth of the District and any other information deemed necessary.

A. STUDY OBJECTIVES

- 1) Review and evaluate existing and historical trends in the District customer's water usage to determine if additional rate tiers or modified fixed rates are warranted.
- 2) Review water and sewer system revenues and expenditures including operating, capital improvement costs and necessary contingencies to ensure that the cost of providing the services is understood and equitably funded with the proposed rates.
- 3) Evaluate the District's existing base/fixed and variable/usage rate structures, review the [2015 Water Rate Analysis](#) and [2018 Sewer Rate Study](#) and recommend changes as needed to ensure rate equity among customer classes, for compliance with law and current industry practices.
- 4) Evaluate the opportunity to establish a modified fixed and/or variable (usage) water and sewer rate for those customers who consistently use significantly less water than the average residential customers (conservation/cost savings rate).
- 5) Propose five-year water and sewer rates that are fair, objective, and accurately reflect the fixed and variable cost of services. The component of the proposed rates covering maintenance and operations, capital improvements, debt service and contingencies are to be separately identified for the purpose of public presentation.
- 6) Propose water rates that encourage water conservation overall, while meeting cost of service principles as required by proposition 218. The water and sewer usage data profile for single

family residential units occupied as short-term rentals, those used as intermittent vacation homes and those occupied full time shall be evaluated and considered in establishing the rate tier structure.

- 7) Evaluate and verify that the District's sewer rates based on water consumption and related policies are appropriate, equitable among residential and commercial customers and in compliance with current laws and rate standards.

B. STUDY REQUIREMENTS

The study is to be performed in conformance with the following policy directions:

- 1) Evaluate District's existing rate structures for conformance with existing statutory regulations and make recommendations for any changes that are necessary to achieve compliance.
- 2) The recommended rates shall be based on cost of service and shall be sufficient to meet the short and long-term revenue requirements of the District's Water and Sewer utility operations.
- 3) To ensure rate equitability the study shall consider and use the following factors in its evaluation and recommendations:
 - a) Using a sampling of the limited property use data available and their water usage profile, make recommendations regarding how, or if the following classes of property use warrant further evaluation in terms of new rate tiers or modified fixed/base rates: single family residential units occupied as short-term rentals and those used as intermittent vacation homes.
 - b) Current and future cost of providing water and sewer in accordance with established and anticipated standards and regulations.
 - c) Projected near future service demands.
 - d) Availability of water supply and regulatory compliance. The District has limitations on water supply during state mandated drought water usage restrictions and is required to restrict its growth in per-capita water usage by current customers to achieve state mandated targets. In addition, there is an increased impact on infrastructure by higher demand users. Water supply and treatment costs, infrastructure impacts and the added cost to achieve water use reduction mandates should be considered with regards to rates for high demand users and those who use water or produce wastewater in excess of the average single family dwelling unit.
 - e) Age and condition of water and sewer systems and the need to fund long-term capital improvement/replacements.
 - f) The median household income of the District's service area as identified in a [2022 study](#) completed by the State Water Resources Control Board. The rate structure needed to fully fund the cost of providing services including capital improvements and contingencies may exceed the financial capacity of the customer base. Options to reduce the recommended rate schedules shall be identified and the associated service impact of such a reduction summarized in the report.
- 4) The recommended rates shall provide direct identification of revenues appropriate to fund operating activities and infrastructure.
- 5) The recommended rates shall be consistent with industry practice for utility rate making in California.
- 6) Justifications for any special classes of customers, rate tiers or fixed rates under the recommended rate structure shall be demonstrated.

- 7) The recommended rates shall result in no decrease in stability of the revenue stream to the Water and Sewer Funds, as compared to the current structure.
- 8) The recommended rates shall consider the type and amount of operating and capital reserves and contingencies appropriate to the District Water and Sewer operations taking into consideration reserves for cash flow, catastrophes, infrastructure replacement and other appropriate purposes.
- 9) The recommended rates must take into consideration the District's billing system capabilities and restrictions. The study shall recommend rates that are capable of implementation without changing billing software or adding billing staff.
- 10) Recommended rates shall be planned for adjustment annually for a five (5) year horizon.
- 11) All electronic models and files shall be developed utilizing accessible software that may be utilized for future rate setting.

D. SERVICES TO BE PROVIDED BY CONSULTANT

- 1) Conduct a detailed review of the existing water and sewer rates and status of the water and sewer funds, and develop a general familiarity with the District's billing system.
- 2) Meetings
 - a. Meet and confer with staff as needed. Meetings may be conducted via video or conference calls.
 - b. Attend a meeting with the District Board to present the status of the rate study and obtain their input.
 - c. Attend the public hearing where the water and sewer rates are considered for adoption, prepare and provide the public presentation of the report and recommendations.
- 3) Conduct analyses as required to address the scope of work.
- 4) Report
 - a. Submit an electronic Draft Report.
 - b. Incorporate comments from District review meeting and submit electronic Final Report.
 - c. Present the final report and recommended rates to the District Board and members of the public at a regular Board meeting.
 - d. Develop and provide source files related to rate model for use in future rate adjustments.
- 5) Provide a time schedule for developing the report including significant milestones.

E. PROPOSITION 218 PROCESS AND PUBLIC HEARING SUPPORT

The District is looking for a cost-effective, creative approach to communicating with and educating its customers regarding the cost of providing high quality, compliant and reliable water and sewer services. It is important in our outreach program to cover all facets of the rate structure upon acceptance by the District.

The District believes considerable focus should be placed on the water and sewer rate structure's foundational principals:

- Customer Water and Sewer rates and charges are the sole revenue source to cover the cost of delivering services. Limited grants are occasionally available for infrastructure replacement which reduces customer costs.
- Fixed rates are in place to maintain services in a ready-to-use condition.
- Rates will be based on the level of service received and must cover the cost of service or the impact of not doing so must be thoroughly communicated to customers.
- Equitable rate tiers will be established that compare against and are based on the average water-efficient customer's water consumption, rewarding low and efficient water use with lower costs while allowing customers who desire to use higher than average water quantities to do so, within water conservation requirements at the true cost of providing the additional water.
- Funding water waste costs and the cost of providing service to above average users will be funded through higher priced tiers.

The selected consultant is expected to work in conjunction with the District's staff in developing the outreach campaign and all collateral components for the rate structure to be implemented. It is expected that the consultant will help coordinate a strategic outreach campaign and track the impact of the outreach campaign. The consultant is expected to assist with the overall effort. The selected consultant will be required to schedule, coordinate and facilitate all stakeholder meetings if determined necessary; coordinate the development of outreach letters, presentation materials, informational brochures, and informational web content; as well as attend meetings at the District office and using MS Teams with senior staff and select meetings of the Board of Directors. The District is looking for a proven expert with specific experience with water and sewer rates and all current State of California noticing requirements.

The proposal should include specific details and clearly address all of the following tasks:

- 1) Develop the strategic planning forum with the District Management Team;
- 2) Develop a strategic methodology/communication plan to reach customers, stakeholders, and Board Members;
- 3) Develop a community outreach campaign, including multi-tiered rate structure support materials (website content, presentation materials, posters, informational brochures, etc.) with a strategic timeline based upon the overall Project schedule;
- 4) Assure compliance with Proposition 218 noticing;
- 5) Provide overall Outreach Management:
 - Facilitate meetings with and a training for District staff.
 - Facilitate and record all community and stakeholder meetings.
 - Ensure progress of deliverables and schedule.

While this described scope of work is brief, it is intended solely to serve as an example.

Consultants are encouraged to reply in any way they deem necessary to show a uniqueness of approach; knowledge of the District service area and customer base; and a solid understanding of the complex issues and increased per-customer cost associated with providing water and sewer service in rural California, where nearly half of the customers are second homeowners living in urban California. Consultants are further encouraged to describe how they would assist the District in accomplishing a

successful customer outreach campaign that paves a favorable perception of the agency out into the future.

F. SERVICES TO BE PROVIDED BY THE DISTRICT

The services provided by the District include, but are not necessarily limited to the following:

1. Furnish all reasonably available records and information, including financial reports, budgets, consumption data, meter sizes and customer classes.
2. Provide information on Capital Improvement Projects and Plans.
3. Provide staff support and assistance as required and agreed to in advance of the studies.

G. SCHEDULE

The following dates reflect the anticipated schedule for soliciting proposals, selecting the Consultant, and awarding the contract for the work requested in this RFP:

- 1) February 13, 2023 - Solicit Proposals
- 2) March 6, 2023 - Proposals Due
- 3) Review Proposals
- 4) March 22, 2023 - Award Contract
- 5) June 13, 2023 – Board presentation of study
- 6) June/July 2023 – Public Outreach
- 7) July 11, 2023 – Set Public Hearing
- 8) July/August 2023 – Community Workshop(s)
- 9) August 8, 2023 – Public Hearing (Tentative)

SECTION B – INSTRUCTIONS TO PROPOSERS

A. PROPOSAL REQUIREMENTS

Each individual or firm (Proposer) submitting a proposal shall meet all of the terms and conditions specified in this Request for Proposal (RFP). By its proposal submittal, the Proposer acknowledges agreement with the acceptance of all provisions of the RFP.

B. TECHNICAL PROPOSAL

The following information is to be submitted as part of the proposal. The proposal is not to be more than ten single-sided pages in length NOT including cover, table of contents, dividers, and two-page resumes of persons to be assigned to the project. Three copies of the proposal are to be provided. Other material may be attached as deemed appropriate, which may include a copy of a rate study performed by the applicant that most closely fits the scope of work outlined above. The ten-page portion of the proposal is to be organized as follows:

1. **Section 1 – Project Approach:** Address the following areas of concern.
 - Approach to developing cost of service and rates as detailed in the scope of work and public education/outreach (Section E).
 - Understanding of current rate structure and the District’s interest in maintaining rate

equity among customers and reasonable continuity in proposed structures.

- Approach to developing rates that reflect the additional cost of higher than average demand customers and low demand customers, and any special ideas, techniques or suggestions that you think might make the project proceed smoothly.
 - Identify the number and purpose of in-person meetings with the Board of Directors.
2. **Section 2 – Firm Qualifications and Experience:** Describe the experience of the firm and of the individuals assigned with related projects of a similar nature. Provide at least three references. The team’s experience with establishing successful rate structures in rural California communities will be considered favorably.
 3. **Section 3 - Project Team:** Identify the consultant’s proposed project team and describe the team's unique qualifications, experience, and training for this type of work.
 4. **Section 4 - Schedule:** Describe the plan/schedule for completing the work including expected frequency of staff update/input meetings (list virtual or onsite). Identify any areas of risk to the schedule or opportunities to expedite.
 5. **Section 5 – Contract Review:** Provide any comments to the District’s Professional Services Agreement.

C. COST PROPOSAL

A separate envelope shall be provided containing the Cost Proposal for the study. The cost proposal should include the consultant’s proposed level of effort and associated rate schedule to successfully accomplish this project. The Cost Proposal shall separately identify:

- 1) Cost of completing the scope of work (Excluding Section D Proposition 218 Process)
- 2) Cost of providing the scope of services detailed in Section D Proposition 218 Process
- 3) Cost of additional in-person meetings above the quantity included in the project scope of work
- 4) List any other anticipated costs or expenses.

D. AGREEMENT

A copy of a proposed agreement is included as **Attachment A**. Evidence of Insurance must be received prior to agreement implementation.

E. CURRENT RATES

A copy of the current rate structure is available on the District’s website using the following hyperlinks and is also included as **Attachment B**.

- [Winter Averaging Sewer Rates](#)
- [Water and Sewer Rate Schedule](#)

F. DEADLINE FOR SUBMISSION OF PROPOSALS

Interested firms should submit proposals by 4:00 P.M. Monday, March 6, 2023

to:

Groveland Community Services District
Attention: Jennifer Donabedian
18966 Ferretti Rd.
Groveland, CA 95321

Technical Proposals (3 copies) should be sealed and marked, "Technical Proposal – Combined Water and Sewer Rate Study – Groveland Community Services District". Cost Proposals (3 copies) should be sealed and marked, "Cost Proposal – Combined Water and Sewer Rate Study – Groveland Community Services District".

The District reserves the right to extend the Submittal Deadline when it is in the best interest of the District.

G. SELECTION OF CONSULTANT

Proposals will be evaluated by a review committee of District staff and if desired Board members or independent third party reviewers using a selection process described in Section C below. They will be evaluated on the basis of experience, qualifications, your approach to the project, value of the public outreach component, and any innovative ideas you have for making the project go quickly and smoothly.

Final selection will be based on the evaluation of proposals unless it is deemed necessary to conduct interviews of closely scored consultants. The consultant determined best qualified to perform this project will be recommended to the District Board for contract award.

The District reserves the right to reject any and all proposals for any reason deemed appropriate by the District.

H. STANDARD TERMS APPLICABLE TO ALL PROPOSALS

Acceptance Period	Unless otherwise specified herein, proposals are firm for a period of ninety (90) days. Time frame may be longer depending on your needs.
Addenda Acknowledgment	Each proposal shall include specific acknowledgment of receipt of all addenda issued during the solicitation period. Failure to so acknowledge may result in the proposal being rejected as not responsive.
Authorized Signatures	Every proposal must be signed by the person or persons legally authorized to bind the Proposer to a contract for the execution of the work. Upon request of the District, any agent submitting a proposal on behalf of a Proposer shall provide a current power of attorney certifying the agent's authority to bind the Proposer. If an individual makes the proposal, his or her name, signature, and post office address must be shown. If a firm or partnership makes the proposal, the name and post office address of the firm or partnership and the signature of at least one of the general partners must be shown. If a corporation makes the proposal, the proposal shall show the name of the state under the laws of which the corporation is chartered, the name and post office address of the corporation and the title of the person signing on behalf of the corporation. Upon request of the District, the corporation shall provide a certified copy of the bylaws or resolution of the board of directors showing the authority of the officer signing the proposal to execute contracts on behalf of the corporation.

Proposal Retention	District reserves the right to retain all proposals for a period of ninety (90) days for examination and comparison.
Cancellation of Solicitation	The District may cancel this solicitation at any time.
Compliance with Laws	All proposals shall comply with current federal, state, and other laws relative thereto.
RFP Documents Examination of	It is the responsibility of the Proposer to carefully and thoroughly examine the documents contained in this RFP. Proposer shall satisfy himself as to the character, quantity, and quality of work to be performed and materials, labor, supervision or equipment necessary to perform the work as specified by this RFP. The failure or neglect of the Proposer to examine the RFP Documents shall in no way relieve him from any obligations with respect to this solicitation. The submission of a proposal shall constitute an acknowledgment upon which the District may rely that the Proposer has thoroughly examined and is familiar with the RFP and the project. No claim will be allowed for additional compensation that is based upon a lack of knowledge of any solicitation document.
Cost of Proposal	The District is not liable for any costs incurred by Proposers before entering into a formal contract. Costs of developing the proposals or any other such expenses incurred by the Proposer in responding to the RFP, are entirely the responsibility of the Proposer, and shall not be reimbursed in any manner by the District.
Groveland Community Service District	Groveland Community Service District, GCSD, and District are used interchangeably and are synonymous with one another
Contractor	Same as Successful Proposer.
May/Should	Indicates something that is not mandatory. Failure to do what “may” or “should” be done will not result in rejection of your proposal.
Must/Shall	Indicates a mandatory requirement. A proposal that fails to meet a mandatory requirement may be deemed non-responsive and not be considered for award.
Proposer	The person or firm making the offer.
Proposal	The offer presented by the Proposer.
RFP	Acronym for Request For Proposals.
Submittal Deadline	The date and time on or before all proposals must be submitted.
Successful Proposer	The person, contractor, or firm to whom the award is made.
Disqualification of Proposer	If there is reason to believe that collusion exists among the Proposers, the District may refuse to consider proposals from participants in such collusion. No person, firm, or corporation under the same or different name, shall make, file, or be interested in more than one proposal for the same work unless alternate proposals are called for. A person, firm, or corporation who has submitted a sub-Proposal to a Proposer, or who has quoted prices on materials to a Proposer, is not thereby disqualified from submitting a sub-Proposal or quoting prices to other Proposers. Reasonable grounds for believing that any Proposer is interested in more than one Proposal for the same work will cause the rejection of all Proposals for the work in which a Proposer is interested. If there is reason to believe that collusion exists among the Proposers, the District may refuse to consider Proposals from participants in such collusion.
Documents to be Returned with Proposal	Failure to completely execute and submit the required documents before Submittal Deadline may render a proposal non-responsive.
Execution of Agreement	The Successful Proposer will be required to execute an agreement in the form attached hereto in Section E of this RFP and comply with all requirements of said Agreement. In case of failure of the Contractor to execute and return the contract and all required documents within the time allowed, the District may, at its option, consider that the Proposer has abandoned the contract, in which case the Proposal

Security Bond, if one was required, shall be forfeited by the Proposer and become the property of the District.

Conflict of Interest	Proposer covenants that it presently has no interest, and shall not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the services hereunder. Contractor certifies that to the best of his knowledge, no one who has or will have any financial interest under this contract is an officer or employee of the District.
Proposal Modifications	Any Proposer who wishes to make modifications to a proposal already received by the District must withdraw his proposal in order to make the modifications. All modifications must be made in ink, properly initialed by Proposer’s authorized representative, executed, and submitted in accordance with the terms and conditions of this solicitation. It is the responsibility of the Proposer to ensure that modified or withdrawn proposals are resubmitted before the Submittal Deadline.
Proposal Withdrawal	A Proposer may withdraw proposal, without prejudice prior to the time specified for the proposal opening, by submitting a written request to Jennifer Donabedian, Administrative Services Manager for the Groveland Community Services District, to withdraw, in which event the proposal will be returned to the Proposer unopened.
Proprietary Information	The original copy of each proposal shall be retained for official files and will become public record after the award of a contract unless the proposal or specific parts of the proposal can be shown to be exempt by law. Each Proposer may clearly label part of a proposal as “CONFIDENTIAL” if the Proposer thereby agrees to indemnify and defend the District for honoring such a designation. The failure to so label any information that is released by the District shall constitute a complete waiver of all claims for damages caused by any release of the information. If a public records request for labeled information is received by the District, the District will notify the Proposer of the request and delay access to the material until seven working days after notification to the Proposer. Within that time delay, it will be the duty of the Proposer to act in protection of its labeled information. Failure to so act shall constitute a complete waiver.

Questions and Comments – Pre-Submittal Questions

The District will accept pre-submittal questions from RFP participants in the interest of clarity and complete responses to the RFP. The RFP participants are encouraged to cover all questions in one request so that District staff can provide timely and effective responses.

All pre-submittal questions will only be accepted by email until March 1, 2023. Responses to all questions will be emailed to all RFP participants. RFP questions are to be submitted to Jennifer Donabedian at jdonabedian@gcsd.org in order to assure that the District has one contact person per Combined Water and Sewer Rate Study firm, please provide this contact information to Jennifer via email as early as possible. The District will conclude the Combined Water and Sewer Rate Study firms that do not provide email contacts do not want to be included in Pre-Submittal information sharing.

Any response will be in a form of an addendum and will be sent as promptly as is practical to all RFP participants. All such addenda shall become a part of the RFP. Any prospective Proposer who obtained the RFP from anyone other than the District is responsible for registering with the District and wish to receive subsequent Addenda.

A Proposer who fails to register with the District as outlined above may be deemed non-responsive and not be considered for award.

SECTION C PROPOSAL REVIEW PROCESS

A. PROPOSAL OPENING/REJECTION/WAIVER

All proposals, irrespective of irregularities or informalities, will be opened at the time stipulated in the RFP document. This is not a public opening. A tally of the names will be performed and may be released upon request. No other information will be released.

The District reserves the right to postpone the Submittal Deadline and opening of proposals any time before the date and time announced in the Request for Proposals or subsequent addenda.

The District reserves the right to waive non-substantial irregularities in any proposal, to reject any or all proposals, to reject or delete one part of a proposal and accept the other, except to the extent that proposals are qualified by specific limitations.

The District also reserves the right to reject the Proposal of any Proposer who previously failed to perform adequately for the District or any other governmental agency.

B. PROPOSAL REVIEW PROCESS AND AWARD OF CONTRACT

Proposals will be evaluated by a review committee of District staff and if desired Board members or independent third party reviewers using a selection process described as follows.

The Committee will evaluate all proposals received in accordance with the Evaluation Criteria. The District reserves the right to establish weight factors that will be applied to the criteria depending upon order of importance. The criteria, however, are not listed in any order of preference. Weight factors and evaluation scores will not be released. The District is not obligated to accept the lowest proposal, but will make an award in the best interests of the District after all factors have been evaluated.

The District reserves the right to further negotiate the proposed work scope and/or method and amount of compensation. A group of finalist candidates may be selected for follow-up interviews and presentations.

The Evaluation Criteria are as follows:

1. Mandatory Elements
 - a. The Combined Water and Sewer rate study firm is independent and licensed to practice in California.
 - b. The firm has no conflict of interest with regard to any other work performed by the firm for the District.
 - c. The firm adheres to the instructions in this request for proposal on preparing and submitting the proposal.
2. Technical Quality
 - a. Understanding of District's current rate structure and experience with similar agencies (i.e. water supply, size, current rate structure).
 - b. Approach to the evaluation and application of rate tiers and proposed modifications.

- c. Quality of work confirmed through reference checks.
- d. Ability to deliver the project on schedule.
- e. The quality of the firm's professional personnel to be assigned to the engagement and the quality of the firm's management support personnel to be available for technical consultation.

Discussions may, at the District's sole option, be conducted with responsible Proposers who submit proposals determined to be reasonably susceptible of being selected for an award. Discussions may be for the purpose of clarification to assure full understanding of, and responsiveness to, the solicitation requirements. Proposers shall be accorded fair and equal treatment with respect to any opportunity for discussion and written revision of proposals. Revisions may be permitted after submissions and before award for obtaining best and final proposals. In conducting discussions, the District will not disclose information derived from proposals submitted by competing Proposers.

Contract award will be based on a combination of factors that represent the best overall value for completing the work as determined by the District, including: the written proposal criteria described above; results of background and reference checks; results from the interviews and presentation phase (optional); and proposed compensation.

A Notification of Intent to Award may be sent to any Proposer selected. Award is contingent upon the successful negotiation of final contract terms. Negotiations shall be confidential and not subject to disclosure to competing Proposers unless an agreement is reached. If contract negotiations cannot be concluded successfully, the District in its sole discretion may negotiate a contract with another Proposer or withdraw the RFP.

Attachment A

CONTRACT FOR PROFESSIONAL SERVICES

This Contract is made this ____ day of _____, 2023 by and between Groveland Community Services District, a special district organized under the laws of California (hereinafter called "District") and _____ hereinafter called "Consultant."

1. THE CONTRACT

This Contract consists of: (1) the general terms and conditions contained herein, and (2) the Exhibits attached hereto, as Exhibits A through B inclusive. The District has furnished the Consultant with the general program and requirements of Consultant's services and the Consultant acknowledges being informed as to the nature and extent of the services required. It is expressly understood between the parties that the District is relying on and looking to the Consultant for performing and establishing the specific and technical requirements of the professional services described below, except where otherwise provided.

2. THE PROFESSIONAL SERVICES

Consultant shall execute the following professional services specified in Exhibit A (Scope of Work) attached hereto and incorporated herein by reference.

3. COMPENSATION FOR SERVICES

Consultant shall receive compensation for performance of the professional services in the amount, and at the times specified, in Exhibit B (Compensation) attached hereto and incorporated herein by reference.

4. CONSULTANT'S RESPONSIBILITIES

A. The Consultant shall perform those services specified in Exhibit A (Scope of Work) and any such additional services as may be authorized in accordance with Article 6 hereof.

B. Consultant enters into this Contract, and will remain through the term of this Contract, as an independent contractor. Consultant agrees that Consultant is not and will not become an employee of the District while this Contract is in effect. Consultant is not entitled to the rights or benefits afforded to the District's employees, including but not limited to disability or unemployment insurance, worker's compensation, medical insurance, sick leave or other employment benefits. Consultant is responsible for providing at Consultant's own expense disability, unemployment, and other insurance, workers' compensation (as set forth below), training, permits, and licenses for Consultant and for Consultant's employees and subcontractors. The Consultant shall be responsible for methods and means used in performing the Consultant's services under this Contract.

C. In the event the Consultant's services are related to a particular project, the Consultant's services shall be performed in a manner, sequence and timing so that they will be coordinated with the needs of the District and other consultants, engineers, architects or contractors for the project. The District General Manager or Interim General Manager shall be the general administrator of the professional services for the project and shall facilitate the exchange of information amongst the consultants, engineers, architects or contractors retained by the District for the project as necessary for the coordination of the project. Except as authorized by the District, all written communications between the Consultants and the District or others for the project shall include the District.

D. The Consultant shall provide progress copies of drawings, reports, specifications and other necessary information to the District and other contracted consultants for coordination and review. All aspects of the project designed by the Consultant shall be coordinated by the Consultant, and the Consultant shall also become familiar with aspects of the project designed by the engineers and/or contracted consultants as necessary for the proper coordination of the project.

E. Consultant may, at Consultant's own expense, use any employees or subconsultants as Consultant deems necessary to perform the services required of Consultant by this Contract. The District shall not control, direct or supervise Consultant's employees or subconsultants in the performance of those services.

F. Consultant agrees that all designs, plans reports, specifications, drawings, inventions, processes and other information or documents produced by Consultant as a product of the performance of Consultant's services under this Contract will be and are hereby assigned to the District as the sole and exclusive property of the District and the District's assigns, nominees and successors, as well as any copyrights, patents, or trademarks obtained by Consultant in connection with the performance of services under this Contract.

G. Any written, printed, graphic, electronically or magnetically recorded information furnished by the District for Consultant's use are the sole property of the District. All such information shall be proprietary, including, but not limited to customer requirements, customer lists, marketing information and information regarding the project, the District's employees, products, services, prices, operations and subsidiaries. Consultant will keep such proprietary information in the strictest confidence, and will not disclose it by any means to any person except with the District's approval or except as required by law. On termination of the Contract, Consultant will return any proprietary information in Consultant's possession to the District.

H. Consultant agrees to indemnify and hold harmless the District, the members of its governing board and its officers, agents and employees from and against all demand, claims, damages, losses, liabilities, expenses and/or costs including reasonable attorney's fees and court costs, arising out of Consultant's willful misconduct, or negligent or reckless acts, errors, or omissions of services contemplated by this Contract, except however, for any such demands, claims, damages, losses liabilities, expenses and/or costs resulting from the willful misconduct, reckless acts, errors or omissions, or negligence of the District and/or its prorata share of negligence.

5. DISTRICT'S RESPONSIBILITIES

A. If the Consultant's services are related to a particular project, the District shall, with reasonable promptness, provide available information regarding the requirements for the project, including any existing or proposed plans and specifications and any requirements of public or quasi-public governmental agencies of which the District is aware.

6. TERMINATION, SUSPENSION OR ABANDONMENT

A. Notwithstanding any other provision of this Contract, this Contract may be terminated by either party at any time by giving thirty (30) days written notice to the other party. In the event of such termination, Consultant shall be compensated hereunder for the hours worked up to the date of termination. In the event of such termination without cause, the District shall not be entitled to rely upon, nor shall Consultant have any liability arising out of the District's use of incomplete designs, plans, reports, specifications, drawings, or other uncompleted tasks.

B. This Contract may be terminated by either party upon not less than seven (7) days written notice should the other party fail to substantially perform in accordance with the terms of this Contract through no fault of the party initiating the termination. For purposes of this subparagraph, the failure to substantially perform in accordance with this Contract includes, but is not limited to, the following:

(1) The District's failure to pay Consultant any compensation due within thirty (30) days after written demand for payment.

(2) Consultant's failure to competently complete the services specified under this Contract within the time periods specified herein or as reasonably directed by the District.

(3) Consultant's or the District's material breach of any representation or agreement contained herein.

(4) Failure of consultant to maintain insurance coverage as required in Section 7.

(5) Consultant may also withdraw from this Contract upon seven (7) days written notice in the event of the District's refusal to cooperate with Consultant or to follow Consultant's advice on any material matter, or the occurrence of any fact or circumstance that would render Consultant's services unlawful or unethical.

(6) In the event of any such termination, Consultant shall be compensated hereunder for the hours worked up to the date of termination.

7. INSURANCE COVERAGE

A. Consultant shall maintain insurance covering claims arising out of the performance of professional services under this Contract and caused by the errors, omissions or negligent acts for which the Consultant is liable, in an amount of no less than \$1,000,000 per occurrence. Additional coverage or terms may be required for Consultant's services related to a particular project.

B. The Consultant shall carry the following additional insurance:

C. Worker's Compensation as required by law and Employer's Liability Insurance in the sum of not less than \$1,000,000.

D. General Liability Insurance, which insurance shall have limits of liability not less than the following:

Bodily Injury:	\$1,000,000 each occurrence \$1,000,000 each person \$2,000,000 aggregate
Property Damage:	\$1,000,000 each occurrence \$2,000,000 aggregate

Comprehensive Automobile Liability, for all vehicles, automobiles, trucks and equipment which insurance shall have limits not less than the following:

Bodily Injury:	\$1,000,000 each occurrence \$1,000,000 each person
Property Damage:	\$1,000,000 each occurrence

Consultant shall furnish the District, upon request, with (1) a certificate of insurance countersigned by an authorized agent or representative of the insurance company, that the insurance policies will not be cancelled, altered or reduced without thirty (30) days prior written notice to the District and that the policy or policies do not exclude coverage for contractual liability, and (2) an endorsement to the General Liability Policy, in the form of CG2010, or such other form reasonably acceptable to the District, confirming that the District is named as additional insured on such policies. In the event of cancellation for non-payment, the District may pay premiums due by Consultant and deduct the paid payment from amounts then or subsequently owing to the Consultant hereunder. Insurance limits called for herein shall be considered to be minimum and the District shall have the absolute discretion to require higher limits should the nature of the work and risks involved therein call for such higher limits. District shall reimburse Consultant the cost for the difference between the normal insurance detailed above and any higher limit insurance required by the District.

8. SAFETY

A. With respect to those items and actions under Consultant's immediate direction and control, Consultant shall strictly observe and comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or properties or their protection from damage, injury or loss. Without limiting the foregoing, with respect to those items and actions under Consultant's immediate direction and control, Consultant shall comply with requirements, regulations, orders and directives promulgated under the Federal Occupational Safety and Health Act, the California Occupational Safety and Health Act, and the California Safe Drinking Water and Toxic Enforcement Act of 1986.

B. Consultant shall be liable to the District for all loss, cost and expense attributable to any acts of commission or omission by the Consultant, or its employees or agents that are not employees of the District, resulting from the failure to use reasonable safety precautions and programs or to comply with safety laws, regulations or ordinances, including but not limited to any fines, penalties or corrective measures. Consultant shall not be liable for any loss, cost and expense attributable to violation of safety laws, regulations or ordinances, and with which Consultant had no direct involvement or control.

9. PAYMENT PROVISIONS

A. Unless otherwise specified in Exhibit B, the Consultant shall render monthly invoices in duplicate covering work completed in such month. Invoices received by the end of the month will be payable by the 15th of the following month.

B. Additional services, beyond the services listed in Exhibit A, may be required by the District. Such additional services shall be performed only in accordance with Change Orders, authorized and issued by the District or the District's designated representative. Each Change Order shall list the scope of revisions to be performed, state the time within which the work is to be completed, designate any special conditions, and state the agreed upon compensation for such services.

10. MISCELLANEOUS PROVISIONS

A. This Contract represents the entire and integrated agreement for the services between the District and Consultant and may be amended only by written instrument signed by both the District and Consultant.

B. Any notices required to be given under this Contract by either party to the other may be effected by personal delivery in writing or by mail, registered or certified, postage prepaid with return receipt requested, by facsimile, or by any nationally recognized overnight service. Notices must be addressed to the parties at the addresses indicated on this Contract, but each party may change the address by giving written notice in accordance with this paragraph. Notices personally delivered will be deemed communicated as of actual receipt. Mailed notices will be deemed communicated as of the date of receipt or the fifth day after mailing, whichever occurs

first. Notices sent by overnight services or facsimile shall be deemed communicated as of the earlier of the date of receipt or twenty-four (24) hours after mailing.

C. If any provision of this Contract is held by a court of a competent jurisdiction to be invalid, void or unenforceable, the remaining provisions will continue in full force and effect without being impaired or invalidated in any way.

D. This Contract shall be binding upon the executors, administrators, heirs, successors and assigns of the District and the Consultant.

E. If any legal action or arbitration is instituted, including an action for declaratory relief to enforce or interpret the provisions of the Contract, the prevailing party will be entitled to reasonable attorney's and expert fees, which may be set by the court in such action or arbitration, or in a separate action brought for that purpose, in addition to any other relief to which that party may be awarded.

F. This Contract will be governed by and construed in accordance with the laws of the State of California.

G. In the event that either the District or the Consultant shall at any time waive any breach of this Contract by the other, such waiver shall not constitute a waiver of any other or succeeding breach of this Contract, whether of the same or any other covenant, condition, or obligation.

H. If any term, condition or covenant of this Contract is held by a court of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions of this Contract shall be valid and binding on District and Consultant.

I. If the scope of services includes Consultant's assistance in applying for governmental permits or approvals, Consultant's assistance shall not constitute a representation, warranty or guarantee that such permits or approvals will be acted upon favorably by any governmental agency.

District Signature:

Consultant Signature:

By: _____
Its: _____

By: _____
Its: _____

Groveland Community Services District
18966 Ferretti Rd.
Groveland, CA 95321
Mailing Address:
P.O. Box 350
Groveland, CA 95321-0350

Exhibit A

Scope of Work

Exhibit B
Compensation



Summary of Water and Sewer Rates

Water

Monthly Fixed Rate Service Charges

Meter Size	Monthly Fixed Rate Charge
5/8" X 3/4"	\$39.64
3/4" X 3/4"	\$39.64
1"	\$63.43
1 1/2"	\$103.07
2"	\$138.74
3"	\$218.02
4"	\$309.19

Usage (Variable) Rate

Gallons Used per Month	Usage Charge per Gallon	Usage Rate Category
0 to 3,300	\$0.00765	Baseline Usage Rate
>3,301	\$0.01514	Peak Demand Usage Rate

Sewer

Monthly Fixed Rate Service Charge and Monthly Usage (Variable) Charge

Service Description	Fixed & Usage Charges	
	Residential	Commercial
Monthly Minimum Charge	\$88.68	\$88.68
Monthly Volume Usage Charge	\$0.01166 per gallon of metered water	\$0.01372 per gallon of metered water

Bonds/Debt Charges

Charge	Water*	Sewer	Water & Sewer Service
Monthly Fixed Rate/Minimum Charge	\$39.64	\$88.68	\$128.32
2021 Water Debt Service	\$15.57		\$15.57
2014 Wastewater Debt Service		\$20.42**	\$20.42
Total Fixed Monthly Rate	\$55.21	\$109.10	\$164.31

*Based on 5/8" meter size

**Not applicable to Groveland/Big Oak Flat accounts not tributary to Lift Station 7

Bonds/Debt and Water & Sewer Rate Information

Bonds/Debt

The District has incurred debt (e.g. revenue bonds) to purchase, upgrade or replace capital improvements such as storage tanks, water and sewer lines, and treatment facilities. Debt is generally repaid on a semi-annual basis over a period of 20 to 30 years. The District collects monthly service fees to repay these bonds.

- **2021 Water Debt Service (formerly called the 2013 Water Debt Service and 2014 Water Debt Service)**

The District issued the 2021 Water Revenue Refunding Bond dated December 8, 2020 in the amount of \$3,594,320 with an interest rate of 2.35% to refinance the remaining balance on the Water Revenue Refunding Bonds, Series A, 2013 Installment Sale Agreement and Series B, 2014 Installment Sale Agreement. Payments are due semiannually in July and January. Final maturity for Series A is July 10, 2026 and July 10, 2027 for Series B. The refunding reduced the District's debt service loan amount by \$126,733.

- **2019 Wastewater Debt Service (formerly called 2014 Wastewater Debt Service)**

The District issued the 2019 Wastewater Revenue Refunding Bond (2019 Wastewater Refunding) dated December 10, 2019 in the amount of \$1,906,811 with an interest rate of 2.840% to refinance the remaining balance on the Wastewater Revenue Refunding Bonds, Series 2014 bond (2014 Wastewater Revenue Refunding). Payments are due semiannually on July 10 and January 10. Final maturity is on July 20, 2026. The refunding reduced the District's debt service loan amount by \$483,155 and provided for an economic gain (difference between the present value of the old and new debt service payments) of approximately \$71,543 in aggregate savings through the end of the loan term in 2026.

Water and Sewer Rates

- **Monthly Fixed Rate/Minimum Charge for Water and Sewer**

This charge provides for the fixed annual costs of operating the buildings, grounds and facilities of the District, irrespective of the quantity of water used or occupancy status.

- **Water and Sewer Consumption (Variable Rate) Charges for Water and Sewer**

This charge provides for the variable costs of operation and maintenance of the systems, directly proportional to the amount of water used.

Aerial view of Groveland Community Services District via Google Earth



GROVELAND COMMUNITY SERVICES DISTRICT

Technical Proposal for:

Combined Water and Sewer Cost of Service / Rate Study

March 6, 2023



nbsgov.com



870 Market Street, Suite 1223
 San Francisco, CA 94102
 Toll free: 800.434.8349

nbsgov.com

March 6, 2023

Jennifer Donabedian
 Administrative Services Manager
 Groveland Community Services District
 18966 Ferretti Road
 Groveland, CA 95321

RE: Proposal for Combined Water and Sewer Cost of Service / Rate Study

Dear Ms. Donabedian,

Thank you for the opportunity to provide a proposal to conduct a water and sewer cost of service and rate study for the District. Our proposal is structured to perform a comprehensive review of the current rates and rate structure, develop final recommendations and clearly communicate the results to the District’s customers. The study report will also provide the administrative record necessary to comply with Proposition 218. Some of the key benefits of our proposal include:

- **Ensuring Revenue Sufficiency and Stability:** NBS will review all revenue sources and develop a financial plan that will fully fund the District’s operating, maintenance, and capital improvements costs, as well as meet other financial obligations, such as debt service requirements and adequate reserve levels. This will include a cost-of-service analysis and a review of the current rate structure to ensure revenue stability.
- **Defensibility and Meeting Legal Requirements:** NBS will provide the expertise to navigate the requirements under Proposition 218 and other best methods to ensure that new water and sewer rates are defensible and comply with industry standards. Our overall objective is to develop practical and implementable solutions that are defensible from both a technical and legal perspective, founded on reasonable assumptions, and designed to meet the broader objectives of the District and its ratepayers.
- **Support with the New Rate Adoption Process:** NBS will also assist District staff in communicating the outcomes and recommendations of the study in presentations to the public and with the District Board. As requested in the RFP, this proposal includes a separate scope and fee for Public Outreach/Proposition 218 Assistance.

Please contact me at 800.434.8349 or via email at abou@nbsgov.com if you have any questions or would like to discuss this proposal further. NBS highly values our existing relationship and embraces the opportunity to work on this study to help the District continue to move forward successfully.

Sincerely,

Alice Bou
 Project Manager

Michael Rentner
 President / Authorized Signer

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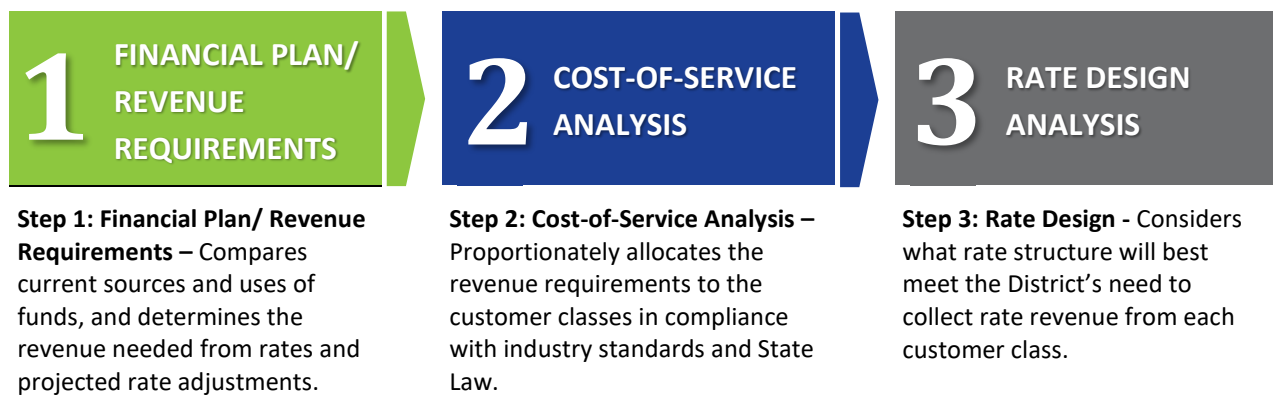


1 | PROJECT APPROACH

Methodology

NBS follows established industry standards and the cost-of-service principles embodied in manuals, such as the American Water Works Association’s *Principles of Water Rates, Fees, and Charges*,¹ also referred to as Manual M1, and the Water Environment Federation’s *Financing and Charges for Wastewater Systems* (Manual of Practice No. 27). We will provide guidance and advice throughout the rate study to ensure that rates not exceed the proportionate cost of providing the service and that rate alternatives developed in this study comply with Proposition 218 requirements. The figure below outlines the process we will use to develop updated utility rates for the District.

Figure 1. Components of a Comprehensive Rate Study



Based on the 2015 San Juan Capistrano court decision,² municipal agencies are required to demonstrate the cost basis for utility rates, specifically the requirement to correlate tiered prices with the actual cost of service at those tiered levels. As a result, this rate study should clearly outline the rationale for how costs have been equitably allocated to customer classes, the equity of the rate designs, and the cost basis for rate alternatives. Additionally, projected rates over the next five years will need to provide sufficient revenues to cover all operational and administrative costs.

NBS will work cooperatively with District staff to develop financial plans and rate recommendations that are well suited to the District’s needs. Based on this input, we expect to make adjustments that result in practical and implementable rates. NBS will provide the leadership necessary to guide the District through the various issues and will explain the key concerns as well as the strengths and weaknesses of the various options. The following sections explain our detailed approach to this study.

Rate Study Scope and Approach

This scope of work is intended to develop stand-alone rate studies for the water and sewer rates. While the scope of work for each utility is nearly the same, the differences in each utility are described herein.

¹ *Principles of Water Rates, Fees, and Charges*, Manual of Water Supply Practices, M1 Manual, American Water Works Association, Seventh Edition, 2017.

² *Capistrano Taxpayer’s Association, Inc. vs. City of San Juan Capistrano*.

TASK 1. KICK-OFF MEETING AND DATA COLLECTION

NBS will provide the District with a data request and hold a kickoff meeting (by videoconference or phone) to review and discuss the data requirements for the study, scope of work, study timeline, and ensure there is a clear understanding of how the study objectives will be met. The data required to conduct the study includes information, such as:

- Financial data typically reported in financial statements.
- Operating and maintenance budgets for each utility including water supply costs, wastewater treatment, personnel costs, and infrastructure replacement costs.
- Detail of total annual rate revenue for the past two years.
- Customer billing information, such as water meter sizes, customer class, property type, and monthly water consumption by customer class.
- Current cash balances in each reserve fund for each of the utilities.
- Capital Improvement and/or Master Plans.

TASK 2. FINANCIAL PLAN

NBS will prepare financial plans for each utility that summarize revenues, expenditures, reserves, and will identify the net revenue requirements – that is, the revenue that must be collected from customer charges.

Task deliverables will include, for each utility:

- A 10-year financial projection model that will serve as a financial “roadmap.”
- Summary of current and projected net revenue requirements.
- Review of the District’s current reserve fund policies and targets.
- Projected year-end reserve fund levels.
- Calculated debt service coverage ratios.

These financial plans will lay the groundwork for the cost-of-service and rate design analyses addressed in Tasks 3 and 4. The following subtasks are anticipated:

- 1. Projected Revenues and Expenditures** – NBS will prepare a 10-year rate model for each utility that projects revenues, expenses, and increases in rate revenue needed to meet all obligations. The analysis will use a cash-basis approach when addressing the District’s system of accounts. The work will provide the District with a financial tool that is able to model rate adjustments, varying operating and maintenance costs, infrastructure improvements, debt issuance, asset replacement, and appropriate reserve fund levels. The District’s projected customer growth rates from master plan documents and planned cost inflation factors will be incorporated into the analysis.
- 2. Evaluate Reserve Fund Sufficiency** – NBS will evaluate the sufficiency of existing reserve funds, target reserves, reserve fund policies, and related issues, such as meeting debt service coverage ratios and other rate covenants. NBS will provide recommendations for reserve fund targets that are tailored to the District’s specific needs. If it is determined a deficit in reserves exists, we will consider a phased-in approach to funding reserves to minimize the impact to ratepayers.
- 3. Review Capital Improvement Program Funding** – NBS will incorporate the District’s plans for new facilities, infrastructure improvements, and asset replacement into the financial plan. We will evaluate the timing, costs, and available reserves needed to fund all projects. NBS will collaborate with District staff to develop a well-conceived approach to funding these capital needs. The solution

will include an appropriate balance between rate and system development fee funded projects and, if necessary, the use of outside financing. NBS will develop up to three scenarios to fund the capital improvement program for modeling and comparison purposes.

The financial plans will be presented in a format similar to that shown in **Figure 2** and **Figure 3** and will be tailored to the District’s chart of accounts. Reserve fund policies will also be evaluated and presented in a format like that shown in **Figure 4** and **Figure 5**.

Figure 2. Example of a Financial Plan Summary

Summary of Sources and Uses of Funds and Net Revenue Requirements	Projected	5-Year Rate Projected Period				
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27
Sources of Water Funds						
Rate Revenue Under Prevailing Rates	\$ 38,263,685	\$ 38,671,900	\$ 39,080,115	\$ 39,488,331	\$ 39,896,546	\$ 40,304,761
Power Sales	23,184	23,184	23,184	23,184	23,184	23,184
Reclamation Water Sales	1,195,619	1,097,717	1,109,304	1,120,892	1,132,479	1,144,066
Other Revenue	4,109,946	4,218,364	4,278,335	4,305,358	4,336,144	4,359,874
Total Sources of Funds	\$ 43,592,434	\$ 44,011,165	\$ 44,490,939	\$ 44,937,765	\$ 45,388,353	\$ 45,831,886
Uses of Water Funds						
Operating Expenses	\$ 29,445,560	\$ 30,475,431	\$ 32,146,093	\$ 33,864,016	\$ 35,640,013	\$ 37,516,800
Debt Service	1,338,950	1,344,150	1,344,650	1,342,650	1,344,450	1,339,850
Rate-Funded Capital Expenses	10,745,230	15,709,880	15,466,303	15,737,019	14,905,625	16,517,431
Total Use of Funds	\$ 41,529,740	\$ 47,529,461	\$ 48,957,046	\$ 50,943,685	\$ 51,890,089	\$ 55,374,082
Surplus (Deficiency) before Rate Increase	\$ 2,062,694	\$ (3,518,296)	\$ (4,466,107)	\$ (6,005,920)	\$ (6,501,735)	\$ (9,542,195)
Additional Revenue from Rate Increases	2,514,013	5,567,550	6,619,143	7,713,543	8,851,923	10,035,491
Surplus (Deficiency) after Rate Increase	\$ 4,576,707	\$ 2,049,254	\$ 2,153,037	\$ 1,707,623	\$ 2,350,188	\$ 493,295
Projected Annual Rate Increase	13.00%	2.20%	2.20%	2.20%	2.20%	2.20%
Cumulative Rate Increases	0.00%	2.20%	4.45%	6.75%	9.09%	11.49%
Net Revenue Requirement²	\$ 35,670,871	\$ 41,493,247	\$ 42,789,286	\$ 44,674,583	\$ 45,513,033	\$ 48,893,172
<i>Debt Coverage Ratio (After rate increases)</i>	14.75	16.56	16.51	16.46	16.36	16.29

Figure 3. Example of a Financial Plan Summary

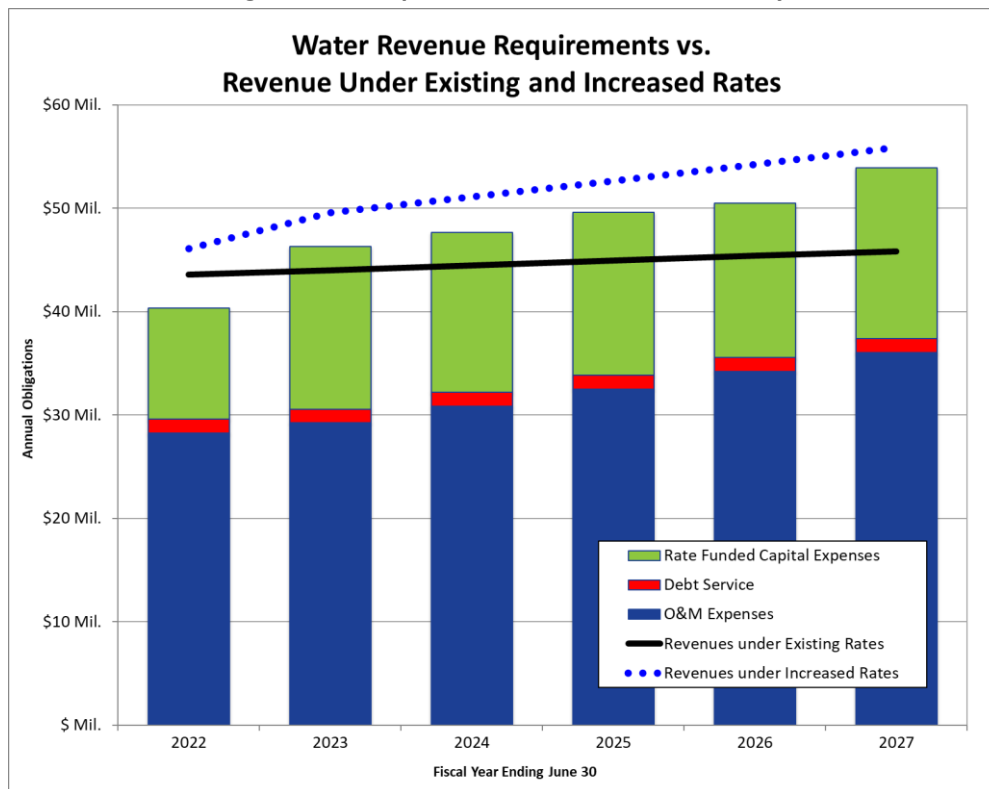
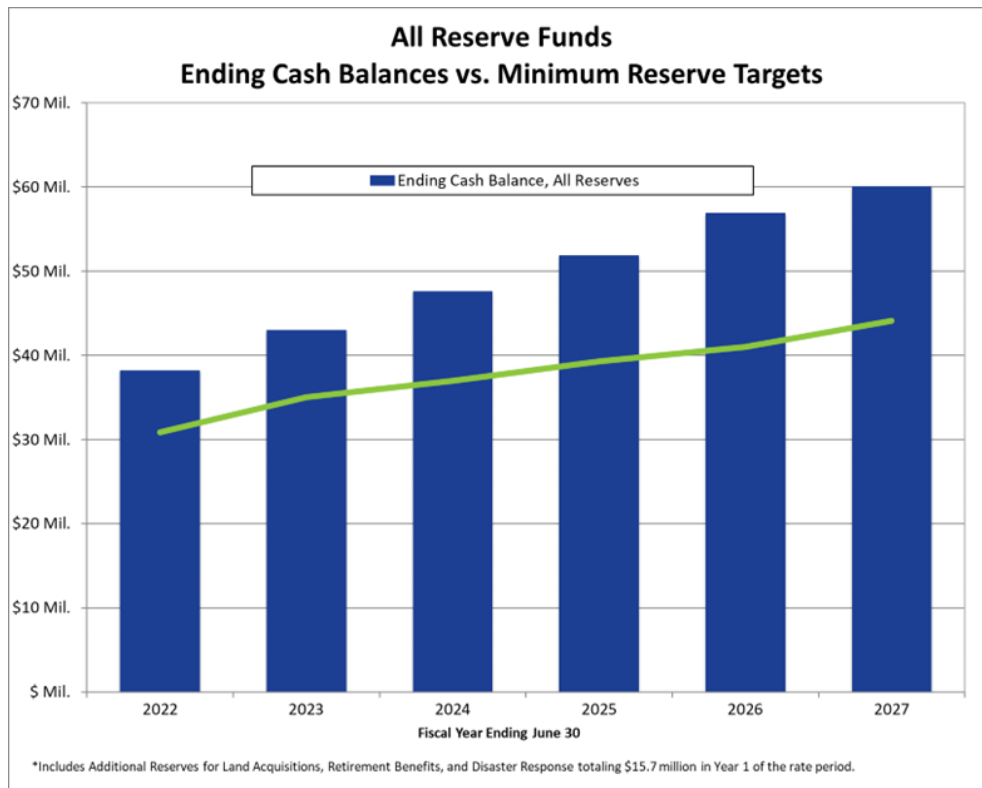


Figure 4. Example of a Financial Reserve Fund Summary

Beginning Reserve Fund Balances and Recommended Reserve Targets	Projected	5-Year Rate Projected Period				
	FY 2021/22	FY 2022/23	FY 2023/24	FY 2024/25	FY 2025/26	FY 2026/27
Operating Reserve						
Ending Balance	\$ 19,558,698	\$ 22,670,190	\$ 23,346,113	\$ 24,300,191	\$ 24,732,727	\$ 26,432,580
<i>Recommended Minimum Target</i>	<i>19,706,874</i>	<i>22,670,190</i>	<i>23,346,113</i>	<i>24,300,191</i>	<i>24,732,727</i>	<i>26,432,580</i>
Capital Rehabilitation & Replacement Reserve						
Ending Balance	\$ 3,135,000	\$ 4,636,845	\$ 8,378,777	\$ 11,475,624	\$ 15,817,910	\$ 17,120,274
<i>Recommended Minimum Target</i>	<i>11,128,000</i>	<i>12,382,000</i>	<i>13,637,700</i>	<i>14,946,700</i>	<i>16,246,700</i>	<i>17,679,400</i>
Total Ending Balance	\$ 22,693,698	\$ 27,307,034	\$ 31,724,890	\$ 35,775,815	\$ 40,550,637	\$ 43,552,854
<i>Total Recommended Minimum Target</i>	<i>\$ 30,834,874</i>	<i>\$ 35,052,190</i>	<i>\$ 36,983,813</i>	<i>\$ 39,246,891</i>	<i>\$ 40,979,427</i>	<i>\$ 44,111,980</i>
Additional Reserves						
Ending Balance	\$ 15,453,827	\$ 15,662,887	\$ 15,874,774	\$ 16,089,528	\$ 16,307,187	\$ 16,527,791
Ending Balance - All Reserves	\$ 38,147,526	\$ 42,969,921	\$ 47,599,665	\$ 51,865,343	\$ 56,857,825	\$ 60,080,645

Figure 5. Example of a Financial Reserve Fund Summary



TASK 3. COST-OF-SERVICE ANALYSIS

Using the net revenue requirements developed in Task 2, we will equitably allocate costs to each customer class based on cost-of-service principles that comply with Prop 218. NBS will review the District’s existing customer classifications for each utility and analyze the historical usage characteristics to determine if any changes should be made to provide more equity among user classes or comply with industry standards.

Based on the level of detail in the District’s budgets, NBS will evaluate how costs should be allocated to various cost components and types of customers. The following subtasks explain the differences by utility.

3.1 Water Cost-of-Service Analysis

NBS will prepare a cost-of-service analysis to equitably allocate the revenue requirements to the individual customer classes based on industry standards. We will review existing customer classes and analyze the

historical characteristics of each customer class. The main components of the cost-of-service analysis are as follows:

- 1. Functionalization/Classification of Expenses** – Functionalizing the expenses means arranging costs into basic categories, such as source of supply, treatment, transmission, and distribution, as well as administrative and overhead costs. Once the costs have been functionalized, they are then classified into their various cost components (i.e., capacity, commodity, and customer-related costs).
- 2. Allocation of Costs to Customer Classes** – These costs are then allocated to individual customer classes based on allocation factors specific to each cost classification, producing fixed and variable revenue requirements for each customer class. These allocations will be used for the actual rate calculations.

Figure 6 provides examples of how water revenue requirements are classified and then allocated to customer classes to establish the amount of rate revenue collected from each customer class. Figure 7 and Figure 8 provide examples of how commodity- and capacity-related costs are allocated to customer classes. Figure 9 is an example of how allocated costs are summarized for each customer class.

Figure 6. Classification of Water Revenue Requirements

Customer Classes	Classification Components				Cost of Service Net Rev. Req'ts.	% of COS Net Revenue Req'ts.
	Commodity-Related Costs	Capacity-Related Costs	Customer-Related Costs	Fire Protection-Related Costs		
Potable Water						
Residential	\$ 18,042,202	\$ 6,840,515	\$ 594,614	\$ -	\$ 25,477,331	57.5%
Multi-Family	649,028	228,794	11,534	-	889,356	2.0%
Condo	1,112,558	375,089	145,147	-	1,632,794	3.7%
Commercial	5,986,400	2,147,733	80,815	-	8,214,948	18.5%
Irrigation/Condo	3,655,132	1,514,092	14,064	-	5,183,289	11.7%
Fire Private	5,725	2,328	21,134	439,342	468,528	1.1%
Fire Public	5	8	37	749	799	0.0%
Public Authority	1,440,331	593,349	10,046	-	2,043,726	4.6%
Potable Water Total	30,891,380	11,701,908	877,392	440,091	43,910,771	99.0%
Other Water						
Whitewater	n/a	9,437	149	-	9,586	0.0%
Commercial Mains	243,961	171,113	2,642	-	417,715	0.9%
Total Net Revenue Requirement	\$ 31,135,341	\$ 11,882,458	\$ 880,182	\$ 440,091	\$ 44,338,072	100.0%

Figure 7. Example of Commodity Allocation Factor

Customer Class	FY 2020/21	3-Year Average	% Adjustment for Conservation	FY 2020/21 Volume Adjusted for Conservation	3-yr Avg. Volume Adjusted for Conservation
Potable Water					
Residential	7,834,756	7,348,005	5.0%	7,443,018	6,980,605
Multi-Family	281,838	269,302	5.0%	267,746	255,837
Condo	483,124	459,891	5.0%	458,968	436,896
Commercial	2,599,571	2,538,441	5.0%	2,469,592	2,411,519
Irrigation/Condo	1,587,227	1,468,436	5.0%	1,507,866	1,395,015
Fire Private	2,486	2,661	5.0%	2,362	2,528
Fire Public	2	1	5.0%	2	1
Public Authority	625,458	596,044	5.0%	594,185	566,242
Potable Water Total	13,414,462	12,682,782		12,743,739	12,048,643
Other Water					
Reclaimed Water	1,402,091	1,356,947	5.0%	1,331,986	1,289,100
Whitewater	n/a	n/a	5.0%	n/a	n/a
Commercial Mains	105,939	96,809	5.0%	100,642	91,968
Total	14,922,492	14,136,538		14,176,367	13,429,711

Figure 8. Example of Capacity Allocation Factor

Customer Class	Average Monthly Use (ccf)	Peak Monthly Use (ccf)	Peak Monthly Factor	Max Month Capacity Factor
Potable Water				
Residential	652,896	861,098	1.32	57.6%
Multi-Family	23,487	28,801	1.23	1.9%
Condo	40,260	47,217	1.17	3.2%
Commercial	216,631	270,361	1.25	18.1%
Irrigation/Condo	132,269	190,597	1.44	12.7%
Fire Private	207	293	1.41	0.0%
Fire Public	0	1	6.00	0.0%
Public Authority	52,122	74,692	1.43	5.0%
Potable Water Total	1,117,872	1,473,060	1.32	98.5%
Other Water				
Reclaimed Water	116,841	148,904	1.27	n/a
Whitewater	575	1,188	2.07	0.1%
Commercial Mains	8,828	21,540	2.44	1.4%
Total	1,244,116	1,644,692	1.32	100.0%

Figure 9. Example of Allocation of Water Revenue Requirements to Customer Classes

Customer Class	No. of Meters FY 2020/21	Percent of Total
Potable Water		
Residential	15,981	67.6%
Multi-Family	310	1.3%
Condo	3,901	16.5%
Commercial	2,172	9.2%
Irrigation/Condo	378	1.6%
Fire Private	568	2.4%
Fire Public	1	0.0%
Public Authority	270	1.1%
Potable Water Total	23,581	99.7%
Other Water		
Reclaimed Water	10	n/a
Whitewater	4	0.0%
Commercial Mains	71	0.3%
Total	23,666	100.0%

3.2 Sewer Cost-of-Service Analysis

NBS will follow a similar cost allocation process used in the water analysis for the sewer cost-of-service analysis. We will rely on the District’s sewer budget to classify all expenses into their various cost components, such as flow (volume), strength (BOD, or COD, and TSS), and customer-related costs. With the District’s customer billing data, we will develop the customer usage statistics, or allocation factors, that will be used to assign costs to each customer class. The allocations will consider water consumption data, sewer treatment plant flow and loading data, and industry standard customer classification data. The cost allocation factors that will be developed include:

- Volume Allocation Factor – Develop estimates of the total annual volume of wastewater treated for each customer class.
- Strength Allocation Factors – Develop estimates of the annual pounds of Biochemical Oxygen Demand (BOD) and Total Suspended Solids (TSS) collected for each customer class.
- Customer Allocation Factors – Calculate the number of customers by customer class in the District’s sewer service area.

NBS will then apportion the costs to individual customer classes based on the allocation factors specific to each cost classification, producing fixed and variable revenue requirements for each customer class. These allocations will be used in the actual rate calculations for each customer class.

TASK 4. RATE DESIGN ANALYSIS

NBS will work with District staff to review the current utility rate structures and develop alternatives to ensure that proposed rates will meet the District’s broader rate design goals and objectives. NBS will work with the District regarding the complex issues and increased per customer cost associated with providing water and sewer service in rural California, where nearly half of the customers are second homeowners living in urban California. Identifying and including pass-through mechanisms in the rates would be incorporated in the rate resolutions and Prop 218 notices. The following subtasks are anticipated:

4.1 Develop Rate Design Recommendations

Updated utility rates will be developed based on the cost-of-service analyses, and we will include a discussion of the relative merits (i.e., pros and cons) of the current rate structures compared to the new alternatives developed in the study. This process includes discussions with the District regarding the desired rate complexity and the resulting customer bills. To the extent that the District chooses to maintain the existing rate structures, we will focus on ensuring that the new rates provide adequate revenue levels to support utility operations, maintenance, and capital improvement needs.

Review Criteria for Improving the Rate Design – Revenue sufficiency and stability are critical components to consider when evaluating rate designs. In projecting future rates and rate increases, NBS takes a conservative approach to ensure that there is no significant under-collection of rate revenue which represents a “worse case” scenario. An approach that minimizes the chance of under-collection would potentially enable the utility to reduce future rate increases without leaving reserves underfunded. There are a number of criteria that NBS will discuss with District staff in considering new rate structures, including:

- How costs allocated to fixed and volumetric rates affect revenue stability.
- How water conservation is reflected in the water and sewer rate analyses.
- How annual changes over the last several years due to drought and conservation efforts should be considered in the rates on a going-forward basis.
- Ensuring that meter sizes are appropriately used in calculating fixed water charges.
- The amount of water allocated to each tier, how much revenue should be collected within each tier, and whether cost-based tiers provide sufficient increases necessary to effectively promote conservation.
- Impacts on customer bills by level of consumption, including single-family residential units occupied as short-term rentals and those used as intermittent vacation homes.

The rate structure alternatives selected will ultimately provide the basis for comparing customer bills under both the current and new rate structures. However, alternative rate structures will be “revenue neutral” because they will all collect the same amount of revenue, both in total and within each customer class.

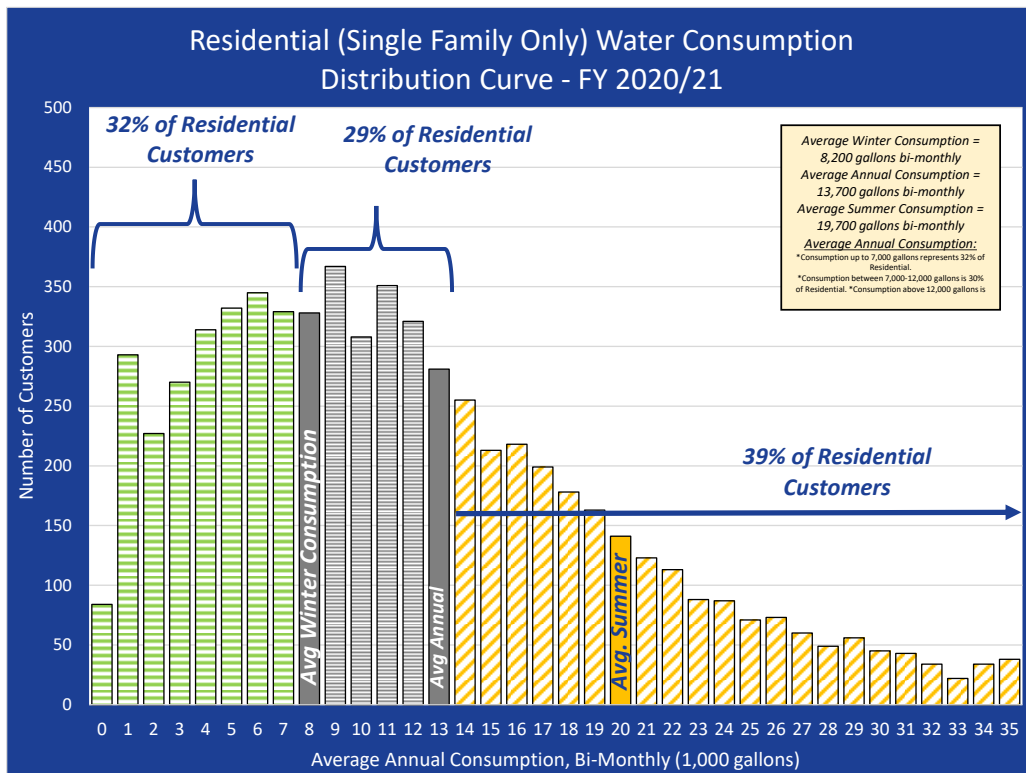
4.2 Analysis of Consumption and Conservation

NBS will evaluate the number of customers at various levels of consumption (see **Figure 10**) and the total water use that occurs within each tier. This analysis can be used to quantify the consumption changes in the last few years related to Covid-19 restrictions and post-drought consumption trends, and help better project future demands, particularly in light of the apparently impending drought conditions.

The District’s most recent water consumption data will be used for this analysis to ensure an accurate projection of the revenue that will be collected within each tier, which also allows for testing various rate structure alternatives (e.g., changing the fixed/variable percentages and/or tier breakpoints). This improves the accuracy in designing water rate tiers and ensures that rates recover sufficient revenues.

Consumption data will also be used to evaluate the impact of various conservation levels along with drought rate alternatives for offsetting the revenue losses. Alternatives may include (1) drought rates tied to drought stages, (2) rate stabilization reserves with sufficient funding to cover conservation-related revenue losses, and (3) revenue stabilization rates.³ A combination of these options may also be used.

Figure 10. Consumption Distribution Analysis



³ NBS prepared revenue stabilization rates for San Lorenzo Valley Water District that was set up to automatically implement volumetric rate increases when monthly revenue fell 10-percent or more behind projections, and automatically be rescinded once the revenue was back on track with annual projections.

4.3 Calculate Fixed and Volumetric Charges

In true cost-of-service methodologies, fixed charges ideally cover all fixed costs. However, since pricing signals are often used to encourage water conservation, many water utilities struggle with revenue stability during times of uncertain demands, particularly State-mandated conservation implemented during the drought.

In contrast, volumetric rates should cover variable costs and be allocated in proportion to consumption. However, the emphasis on conservation typically results in collecting some fixed costs through volumetric rates. While this exposes water utilities to revenue instability (e.g., when consumption drops and the utility fails to cover all the fixed costs), the use of rate stabilization reserves and drought rates can offset these challenges.

Determining the best combination of fixed and variable charges is also influenced by other factors, such as ease of understanding and ease of administration. NBS will work with District staff to develop an appropriate balance between fixed and variable charges in the new utility rates.

4.4 Calculate Drought Rates (Optional - Revenue Stabilization Rates)

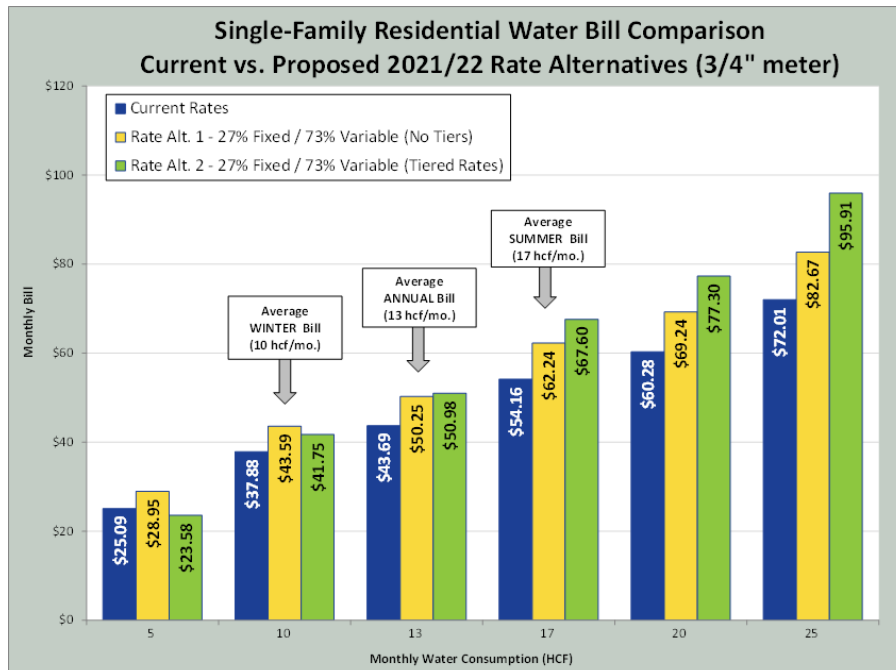
Corresponding to the specific levels of conservation, NBS will prepare drought rates that account for the variable costs that decrease when the District sells less water and also adjusts volumetric rates in a revenue-neutral manner that mitigates a net loss in rate revenue. These drought rates would be intended to go into effect whenever the District declares it is in a specific stage of its adopted drought mitigation plan, if available.

NBS has also successfully created and implemented “revenue-stabilization rates” with automatic increases whenever projected monthly volumetric rate revenue falls by 10% or more. We will discuss this option with the District to determine the approach that best serves the District’s needs.

4.5 Comparison of Customer Bills

NBS will prepare rate tables and monthly bill comparisons for each utility that compare the impact of each rate alternative. Each customer class will have a separate bill comparison as shown in **Figure 11**. These tables and charts will be used as needed in the report and in presentations with the Board and the public.

Figure 11. Example of Residential Water Bill Comparison



TASK 5. PREPARE WRITTEN STUDY REPORT

NBS will prepare draft and final study reports for each utility and work with District staff to review drafts of these reports prior to public release. Our emphasis will be to present a clear and concise report with an executive summary of no more than two pages. Key assumptions, methodologies, and factors affecting the development of the proposed rates will be highlighted with charts and graphs when helpful. In addition, more technical aspects of the study, particularly the tables documenting the calculations and sources of data, will be separately provided in the technical appendix.

TASK 6. MEETINGS AND PRESENTATIONS

NBS will meet with District staff on a regular basis regarding data collection, analysis, initial results, and to answer questions staff may have. We assume that progress meetings with staff will be remote which helps reduce the study costs. We have also budgeted for two (2) public meetings which include one (1) District Board meeting to present the rate study and answer any questions the Board may have, as well as a rate study workshop to introduce the study to the Board and the public. Our cost proposal has provided the additional costs for in-person meetings and offers the District the option to select the format and number of meetings.

Optional Service:

Proposition 218 Process and Public Hearing Scope (Public Education / Outreach)

INITIAL RESEARCH - KICK-OFF MEETING & PROJECT SCHEDULE

NBS will communicate with the District throughout the project's duration to clarify the District's goals, identify any particular circumstances, and develop a realistic project schedule. NBS will meet with District staff, legal counsel, and other interested parties to:

- Establish lines of communication.
- Clarify the specific project goals and criteria that will meet the District's preference.
- Identify and resolve any special circumstances regarding the engagement process.
- Develop an outreach and communication plan to provide clear education to ratepayers.

OUTREACH MEETINGS

- Host and facilitate up to two virtual or in-person meetings to help educate the community on rates and allow community members to discuss items of importance.
- One or more postcards will be created to announce the community meetings.
- Lead meetings with a core focus on the water and sewer rate structures' foundational principles.
- Creation of meeting materials such as posters and exhibits in multiple languages.
- Develop action items based on feedback received at community meetings.
- Record virtual community meetings to be shared on CivicMic.com, the District webpage, and social media sites.

WEBPAGE CREATION - DEVELOP AND DEPLOY CONTENT TO A DEDICATED WEBPAGE AND SOCIAL MEDIA

This task includes but is not limited to the items below. A link will be provided for the District website to send community members directly to **CivicMic.com**.

- Rate calculators or bill estimator – one for sewer and one for water
- Background on the need for increased rates
- History of use of current funds available to the District
- Timeline of anticipated events
- Legislative updates
- Meeting announcements and minutes
- Recorded meetings
- Copies of 218 notices

EDUCATIONAL FLYER

NBS will create a **multilingual** flyer that answers frequently asked questions, explains items such as rate tiers and fixed rates, and supports the 218 process.

EMAIL CAMPAIGN - ESTABLISHMENT OF A LISTSERV

Using the CivicMic platform, we will establish an email contact list for participants in this engagement. Content post to the CivicMic website will be sent directly to all listserv participants. Ways to sign up for CivicMic.com will be shared on meeting announcement postcards and at community meetings.


COMMUNITY SUPPORT - PROVIDE PHONE AND EMAIL SUPPORT THROUGHOUT THE PROCESS

A toll-free phone number will be provided for use by the District, community members, and any other interested parties. Bilingual staff will be available for Spanish-speaking community members. In addition, community members can submit questions directly to CivicMic.com.


PROPOSITION 218 PUBLIC NOTICING

The key technical task will be to prepare a draft Prop 218 Notice and provide the proposed rate tables included in the notices. Modifying the District's Municipal Code and rate resolutions are also included, since they will need to be changed to accommodate the new rates. The District should also have legal counsel review the notices for legal compliance with the provisions of Prop 218 wording related to pass-throughs, etc.

2 | FIRM QUALIFICATIONS AND EXPERIENCE




AT-A-GLANCE: HELPING COMMUNITIES FUND TOMORROW




27
YEARS

In
Business




100%
ESOP

NBS is a 100%
employee-owned
S-Corporation



NBS HEADQUARTERS
32605 Temecula Pkwy | Suite 100
Temecula, CA 92592


SAN FRANCISCO REGIONAL OFFICE
870 Market Street | Suite 1223
San Francisco, CA 94102



CONTACT
Alice Bou | 800.434.8349
abou@nbsgov.com


Since 1996, NBS has supported California municipalities with the implementation and ongoing administration of local funding tools.

While the firm originally focused on Special Financing Districts (SFDs), specifically the formation and administration of special assessments and taxes, we have evolved with our clients' needs and now provide a full range of revenue consulting services. We focus on sustainable water and wastewater utility rate programs, cost allocation plans, cost recovery, and legally justified fee design. Across all practice areas, we have worked with more than **500 public agencies** to date, including cities, counties, school districts, utilities, and special districts.




LEGAL NAME
NBS Government
Finance Group

DBA
NBS



57
EMPLOYEES



INDIVIDUAL AUTHORIZED TO NEGOTIATE AGREEMENT
Michael Rentner, President

Utility Rate Group

The NBS Utility Rate Group ensures your utility rates, system capacity fees, and financial plans provide an appropriate level of funding and are also justifiable in a fluid legal and regulatory environment.

500
STUDIES
PERFORMED

We act as strong advocates for our many utility clients to ensure that rates and fees address the multitude of challenges facing each community. Just ask the municipalities where we have performed more than 500 studies!

**PROP
218**
COMPLIANT

Once study results are in, we support you through the Proposition 218 approval process. Working within legal and industry standards, we partner with you to implement solutions for the most challenging financial issues.



Throughout the process, we strive to educate the public, manage community expectations, and work within the often-confusing legal framework to develop the best solutions for your utility. Our analytical support and expert consultants help agency staff and legal counsel navigate the practical and legal challenges.

NBS Similar Water and Sewer Project Experience

Below is a sample of projects for California municipal agencies that our proposed team has completed (or is now completing) which are similar to the District’s study.

- Azusa Light and Water, Water Rate Study
- Alameda County Water Agency (Zone 7), Connection Fee Update Study
- Bellflower Mutual Water Company, Water Rate Study
- Calaveras County WD, Water and Sewer Rate Study
- Citrus Heights Water District, Water Rate Study
- City of Colton, Water Rate and Connection Fee Study
- City of Santa Ana, Public Utilities Internal Overhead Cost-Allocation Analysis (Internal White Paper)
- City of Davis, Sewer Rate and Capacity Fee Study
- City of Fort Bragg, Water, Sewer and Drainage Rates
- City of Fresno, Public Sanitation Fee Study
- City of Redding, Water, Sewer and Solid Waste Rate and Development Impact Fee Studies
- Cucamonga Valley Water District, Water and Recycled *Water Connection Fee Study*
- Costa Mesa CSD, Solid Waste Rate Study
- City of Los Angeles, Department of Water and Power, Various Water Rate Analyses*
- City of Madera, Water, Sewer, Storm Drainage and Solid Waste Rate Studies
- City of Eureka, Water and Sewer Rate Study
- City of Morgan Hill, Water and Sewer Rate Study
- City of Redding, Water, Sewer and Solid Waste Rate Study and Connection Fee Analysis
- City of Sacramento, Water, Sewer, Combined Sewer, and Stormwater Development Impact Fee Studies and Community Sanitation Fee Study
- City of Santa Paula, Water and Sewer Rate Study
- County of Sonoma, Water and Sewer Rate Study
- City of San Francisco, Public Utility Commission, Solid Waste and Electric Utility Rate Studies*
- City of Sausalito, Sewer Rate Study
- City of Sunnyvale, Water Rate Study
- City of Victorville, Sewer Rate Study, Industrial Pretreatment Program Fee Study, and Storm Drain Rate Study
- Desert Water Agency, Water, Sewer & Recycled Water Rate Study, and Tribal Water Rates Analysis
- Hidden Valley Lakes Community Services District, Water and Sewer Rate Study
- Humboldt CSD, Water and Sewer Rate study
- Mountain House CSD, Water and Sewer Rate Study
- Napa Sanitation District, Sewer Rate Study
- San Benito County, Developer Storm Drainage Impact Fee Reimbursement Analysis
- Town of Mill Valley, Sewer Rates and Capacity Fees
- Pajaro Sunny Mesa CSD, Water Rate Study
- San Lorenzo Valley Water District, Water and Sewer Rate Study and Fire Damage Surcharge Study
- Santa Clara Valley Water Agency, Water Supply and Flood Control Development Impact Fee Study
- Suisun-Solano Water Authority, Water Rate Study
- Sussex County, Delaware, Water, Sewer Rate and Capacity Fee Study and Oversizing Credit *Analysis*
- Valley of the Moon WD, Water Rate Study
- Victorville Water District, Water Rate Study
- Valley Sanitation District, Sewer Rate Study

** As subconsultant to Guide House/Navigant*



Below is a sampling of projects and references similar in scope and magnitude to the District’s needs.

SUISUN-SOLANO WATER AUTHORITY
FINANCIAL PLAN AND WATER RATE UPDATE

Project Timing: 2019 – 2020

Contact Information

Cammie Morin
Finance Director
810 Vaca Valley Parkway, Ste 201
Vacaville, CA 95688
P: 707.455.4008
E: cmorin@SIDWater.org

NBS Project Team:

Allan Highstreet, Alice Bou

NBS was selected by the Suisun-Solano Water Authority to review and update the water rates established in 2015. Under the direction of the project manager, NBS assisted in developing the financial plan, performing the cost of service and rate design analyses, as well as updating the current water rates. During this process, NBS worked cooperatively with SSWA staff to develop an updated financial plan and water rate schedule that incorporated both the current and planned operating, maintenance, and capital improvement costs. NBS also helped guide the Authority through the various rate options and key concerns by explaining the issues involved in updating the previous rate study.

CITY OF SANTA PAULA, CA
WATER AND SEWER RATE STUDIES

Project Timing: Eight (8) years / Last Project Completed: 2021



Contact Information

Clete Saunier
Public Works Director
Christy Ramirez
Finance Director
866 Main Street
Santa Paula, CA 93060
P: 805.933.4212 (Clete)
P: 805.933.4211 ext. 204 (Christy)
E: CSaunier@spcity.org
E: cramirez@spcity.org

NBS Project Team:

Greg Clumpner, Alice Bou

In 2021, NBS completed an update of the cost-of-service study of water and sewer rates that NBS originally prepared in 2014. Funding for significant capital improvement projects and converting sewer rates to fixed charges plus volumetric rates based on average winter consumption were key elements. Water rate design continued to address Covid-19 related consumption trends, Prop 218 legal concerns, and customer bill impacts. Several public workshops and council meetings were critical to securing a 5-0 approval by the City Council.

Other consulting services included evaluation of policies related to ADUs, customer leaks, low-income assistance, and financial projections.

Project dates for studies:

- 2014 Water and Sewer Rate Study Report*
- 2016 Review of ADU’s, Rate Alternatives*
- 2019 Update of Water and Sewer Rate Study*
- 2021 Update of Water and Sewer Rate Study*
- 2022 Assistance with Budget Projections & SRF Loan Funding*

CITY OF MADERA

WATER, SEWER, STORM DRAINAGE AND SOLID WASTE RATE STUDY

Project Timing: September 2020 - April 2022



Contact Information

Vicki Crow, Dept. of Finance
205 West 4th Street
Madera, CA 93637
P: 559.662.4995
E: vcrow@madera.gov

NBS Project Team:

Allan Highstreet, Greg Clumpner,
Jordan Taylor

This comprehensive rate study for the City's utilities covered full cost-of-service analyses, financial plans, and rate design alternatives. The City had not updated rates in many years and was relying on NBS to ensure rates comply with Prop 218, meet revenue requirements, and provide a fresh approach to revenue collection. The City was aware of numerous rate structure deficiencies that they wanted fully addressed and relied on NBS to provide the necessary leadership in this effort. Key tasks included a comprehensive review of rate designs, customer classes, and cost-of-service analyses. The study also addressed new funding sources for street sweeping and SB 1383 organics programs. Final reports for water, sewer and solid waste have been completed and the proposed rates have been approved by the City Council.

Project dates for studies:

*Water, Sewer, Storm Drainage and Solid Waste Rate Studies
(Separate Reports): Final Study Reports issued in March/April 2022*

CITY OF REDDING, CA

WATER, SEWER AND SOLID WASTE RATE, RATE UPDATE, AND IMPACT FEES

Years as client: Ten (10) years/New rate study project started in Jan 2023



Contact Information

Chuck Aukland
Public Works Director
or Ryan Bailey, PE
777 Cypress Ave.
Redding, CA 96001
P: 530.225.4170 (Chuck)
P: 530.224.6030 (Ryan)
E: caukland@cityofredding.org
E: rbailey@cityofredding.org

NBS Project Team:

Greg Clumpner, Alice Bou,
Jeremy Tamargo

NBS completed an extensive update of the cost-of-service study of water, sewer, and solid waste rates originally prepared in 2013. A key part of these studies was working with a Citizens Advisory Group that reviews and provides recommendations to the City Council. Major tasks included reviewing financial/rate setting policies, preparing financial plans, revenue requirements, cost-of-service analysis, and developing alternative rate designs. NBS also updated the City's capacity fees in 2017 and completed the update of the rates in January 2020 – the fourth study for the City since 2013 and the result of their confidence in NBS' ability to effectively conduct these studies.

Project dates for studies:

*2013 Rate & Capacity Fee Study: March 2012 – August 2013
2016 Rate Update Study: January 2016 – November 2016
2017 Impact Fee Study: July 2017 – December 2017
2019 Rate Study Update: January 2019 – January 2020
2023 Utility Rate Study Update – Ongoing*

3 | PROJECT TEAM

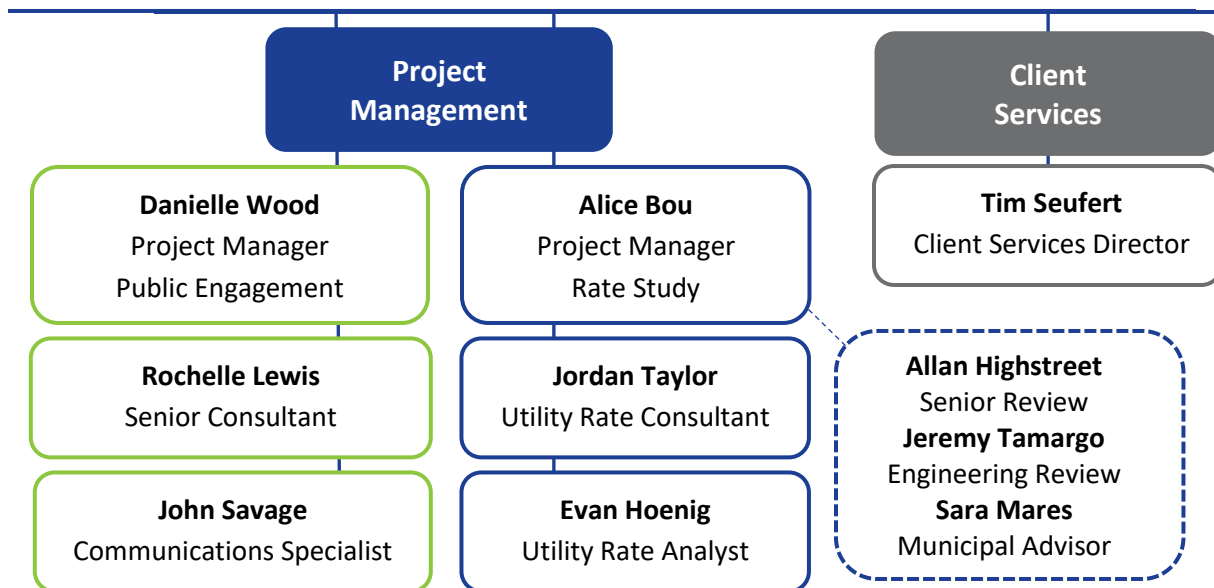
Key Personnel

NBS’ staff include 57 professionals with extensive experience in the fields of finance, management, engineering, and local governance. The staff selected for Groveland Community Services District’s Combined Water and Sewer Cost of Service / Rate Study are those most qualified based on their experience and backgrounds. The following is a brief overview of NBS’ proposed consulting team. Our team members work together seamlessly allowing your staff to focus on other priorities.

Project Organizational Chart



District Stakeholders, Management and Staff



*All work will be performed in-house by the above employee-owners of NBS.
Full resumes are included in the Appendix.*

ALICE BOU, PROJECT MANAGER, RATE STUDY

Role and Responsibilities: Alice Bou will direct the day-to-day work efforts of the project team and will work closely with the District’s project manager to discuss and review the overall approach, development of rate alternatives, and creative solutions to consider. She will be the District’s main point of contact throughout the study and will design and direct analytical efforts of the project team, provide senior-level technical analysis and review, and monitor the schedule and delivery of work products to the District’s satisfaction. Alice will be fully conversant in all findings and will be present for progress meetings with District staff and all public presentations for this project.

Work Experience: Alice Bou has a Bachelor of Arts degree and offers more than two decades of experience working in accounting and financial management performing data analysis, variance analysis, budgeting and forecasting, financial modeling, and managerial reporting.

ALLAN HIGHSTREET, SENIOR REVIEW

Role and Responsibilities: Allan Highstreet will provide additional experience in water and sewer rate making and provide senior technical review on this project. He will be available as needed throughout the project to assist the project team with the analysis and technical issues as they arise.

Work Experience: Allan Highstreet has 41 years of experience in the water industry where he was a senior vice president managing water resource planning and development projects for Jacobs Engineering (previously CH2M Hill). Allan's four decades of experience includes preparing water and sewer rate and capacity fee studies, and he provides invaluable experience to the NBS project team for this engagement. His academic background includes a BS in Agricultural Business and a MS in Agricultural Economics.

JORDAN TAYLOR, UTILITY RATE CONSULTANT

Role and Responsibilities: Jordan Taylor is on staff with NBS and has more than a decade of project experience. She will support the project team in performing financial plan analysis, consumption data analysis and validation, cost of service analysis and calculations, and develop the rate design and funding alternatives.

Work Experience: Jordan Taylor has a Bachelor of Science degree in Chemistry and a master's degree in Business Administration with an emphasis in Finance. She offers more than 10 years of accounting experience along with extensive knowledge of financial analysis and budget planning. Jordan has completed more than 40 similar studies across California.

EVAN HOENIG, PROJECT ANALYST

Role and Responsibilities: Under direction of the Project Manager, Evan Hoenig will perform large-scale data analysis and validation as needed on this project. He will support facilitating data collection and reminders to staff to keep efforts moving along the agreed upon timeline for the completion of each task.

Work Experience: Evan Hoenig is a Project Analyst with NBS. He brings more than a decade of compliance management experience to our project team, as well as public budget development and administration, research, project management and financial analysis experience. He has extensive skills in analytical software, databases, and spreadsheets. Evan has a Bachelor of Science in Business Administration/ Management from California State University, San Marcos.

JEREMY TAMARGO, ENGINEERING REVIEW

Role and Responsibilities: Jeremy Tamargo is responsible for providing additional engineering resources and support for utility rate studies. He will be available as needed throughout the study to assist the project team with the technical analysis and help solve issues as they arise. Jeremy will work closely with the District to review the overall approach, help develop rate alternatives, and suggest creative solutions to consider.

Work Experience: Jeremy Tamargo is an NBS staff member based in the Temecula office. He is a professional engineer licensed in the State of Oregon and has an application in technical review with the California Board for Professional Engineers, Land Surveyors, and Geologists for comity licensure in the State of California. Jeremy has a Master of Science in Environmental Engineering from Syracuse University and a Bachelor of Science in Civil Engineering from University of Notre Dame and is a member of the American Society of Civil Engineers.

SARA MARES, REGISTERED MUNICIPAL ADVISOR

Roles and Responsibilities: Sara Mares is a Director with NBS and will be the Registered Municipal Advisor Representative for this project.

Work Experience: Sara Mares has more than 22 years of experience with NBS and is a Registered Municipal Advisor Representative. She has extensive experience with modeling and structuring revenue mechanisms that support debt issuance. Sara has provided bond issuance disclosure related to revenue bonds, both stand-alone that are secured by utility rate revenue or as part of a pool bond structure.

DANIELLE WOOD, PROJECT MANAGER, PUBLIC ENGAGEMENT

Role and Responsibilities: As the lead consultant on public engagement, Danielle Wood will communicate directly with District staff to discuss engagement milestones, create and adjust engagement approaches and lead community meetings on behalf of the District. Danielle will serve as the primary contact for this effort.

Work Experience: Danielle has more than two decades of experience as a Director at NBS. As one of the developers of CivicMic.com, an online outreach and collaboration tool, she is a seasoned professional in outreach, public engagement, collaborative governance, special financing district formation and administration.

ROCHELLE LEWIS, SENIOR CONSULTANT, PUBLIC ENGAGEMENT

Role and Responsibilities: As the senior consultant on public engagement, Rochelle Lewis will communicate directly with District staff to discuss the same items as the project manager ensuring there are two staff members with full details and understanding of the project. Rochelle will serve as the secondary contact for this effort.

Work Experience: Rochelle has more than two decades of experience in outreach, public engagement, local government financing measures and communications.

JOHN SAVAGE, COMMUNICATIONS SPECIALIST

Role and Responsibilities: John Savage will work closely with the project manager to develop content that will be used to educate the community. He will create dedicated web pages and targeted content on CivicMic.com, monitor and record community meetings, and develop engagement materials such as surveys to promote a high level of community engagement and participation.

Work Experience: John is an experienced communications specialist with more than a decade of professional experience in public engagement, outreach, project and relationship management.

TIM SEUFERT, CLIENT SERVICES DIRECTOR

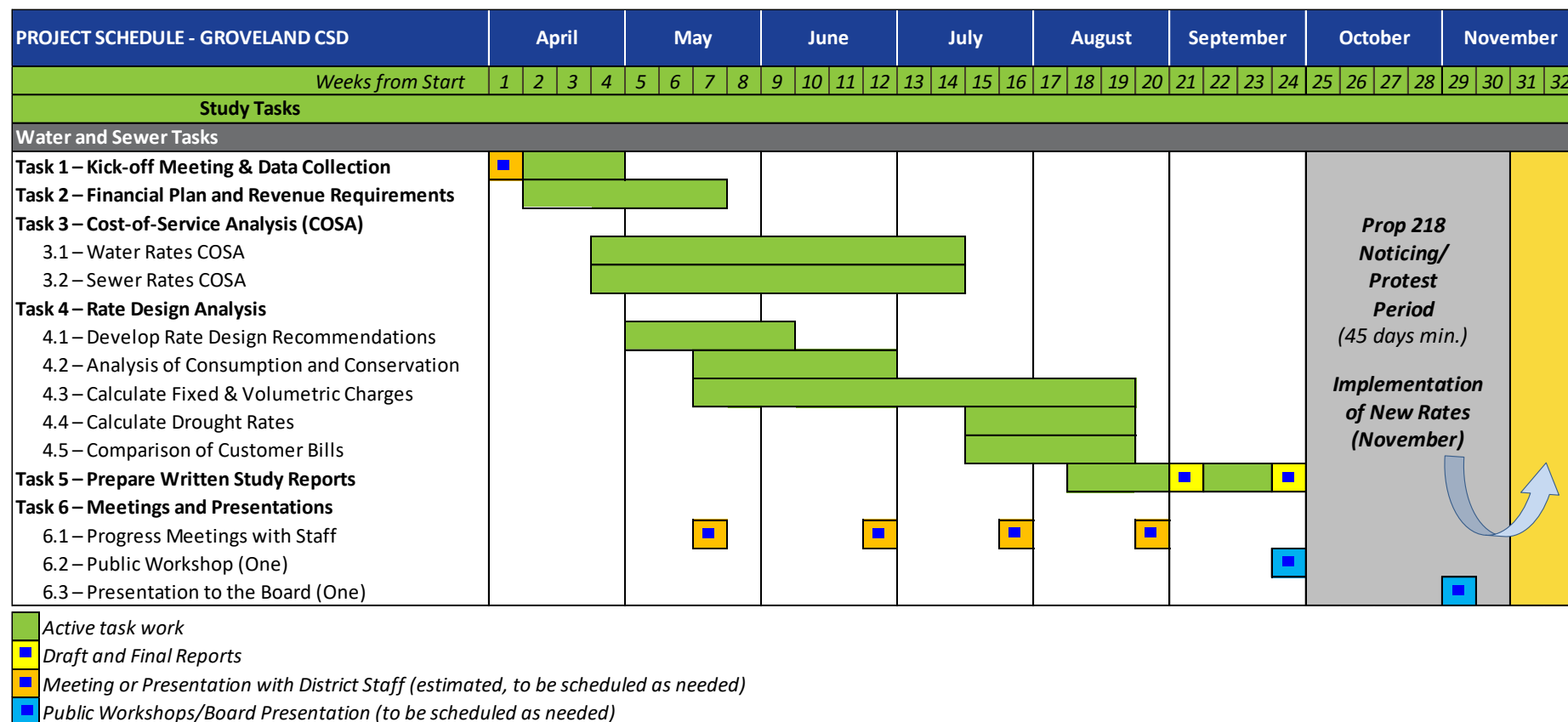
Roles and Responsibilities: As Client Services Director, Tim Seufert will ensure that the District's fundamental objectives are being met at all times and that the project is proceeding on a timely basis. He is included on the team as an active representative of our company's commitment to the highest level of service.

Work Experience: Tim Seufert has two decades of local government experience with a wide variety of revenue tools. He also has a decade of corporate financial experience. Tim has been involved with many projects from their inception and feasibility stage to their completion.

4 | SCHEDULE

The following is an overview of our proposed project schedule. We will discuss a detailed schedule at the kick-off meeting, along with the expected timing for individual tasks.

PROJECT SCHEDULE FOR THE GROVELAND COMMUNITY SERVICES DISTRICT



Note: This page intentionally formatted differently to improve legibility of content.

5 | CONTRACT REVIEW

NBS accepts the terms, conditions and general form of the Groveland Community Services District standard Consultant Services Agreement without modification.

APPENDICES

The appendices contain:

- Appendix A: Full resumes for our proposed project team
- Appendix B: Sample Reports

APPENDIX A | PROJECT TEAM RESUMES

EDUCATION

- Bachelor of Arts, University of California San Diego, La Jolla

HIGHLIGHTS

- Two decades of financial, accounting and risk management experience
- Extensive experience in financial reporting, risk management analysis, budget management and development of accounting policies and procedures
- In-depth experience as a finance manager, consultant and controller in private industry
- Supports project teams completing public utility rate and fee studies in performing large-scale data analysis, financial modeling and rate analysis



“Thanks Alice, we certainly appreciate your patience, persistence, thoroughness, and ability to adapt on the fly! I believe our final product and recommended actions turned out very well.”

*Doug Mathews
Director of Public Works & Water, City of Victorville*



BIOGRAPHY

Alice Bou will serve as the Project Manager for this effort. She is an accomplished finance professional with proven success in the oversight of management accounting and business analysis. Alice has two decades of experience working in accounting and financial management, performing data analysis, variance analysis, budgeting and forecasting, financial modeling, and managerial reporting. She has also developed detailed procedures and systems documentation with a focus on productivity, data integrity and functionality to promote transparency of all finance and accounting functions across all departments of the entire organization. Alice’s diverse experience is essential to the work performed by NBS.

As a member of the NBS team, Alice assists in the preparation of financial plans, cost of service, rate, and fee design analysis for our public utility clients. She reviews financial statements, budgets, capital improvement plans, operational data, and customer billing information for use in public utility rate and fee studies. Alice adds value to our team with her exceptional strategic financial planning and analytical skills.

RELEVANT PROJECT EXPERIENCE

- **City of Sausalito – Sewer Rate Study:** Developed a comprehensive financial plan to address the City’s increasing operating and maintenance costs as well as the need to finance \$8.6 million in planned capital improvements over the 5-year rate period. Due to the deteriorating condition of the City’s sewer system, the overall goal was to identify equitable sewer charges that addressed sewer upgrades and services and develop rates that balanced the use of outstanding bond proceeds, cash reserves, and additional revenue generated from rate increases.
- **City of Davis – Sewer Rate and System Capacity Fee Study:** Established sewer capacity fees for the City that reflect the cost of sewer system infrastructure that is available to serve new development. Many factors were considered in the study, including the allocation of the \$268 million in existing system assets, the cost of planned capital improvements, and adjustments for outstanding debt and cash reserves. The assigned EDU’s per residential type of use were calculated based on the City’s most recent sewer rate study and average winter water use.

RELEVANT PROJECT EXPERIENCE | CONTINUED

- City of Redding – Water, Sewer, and Solid Waste Rate Study:** Performed an update of the City’s rate studies for its water, sewer, and solid waste utilities, which included updating long-term financial plans to incorporate funding capital improvements estimated at \$97.2 million and reviewing alternative rate structures. Although all three utilities were financially sound, rate increases were necessary to ensure the continued financial health of the City’s utilities by generating sufficient revenue needed to meet projected capital funding requirements, providing revenue stability, and providing equity in rates among customer classes. In addition, the cost-of-service analysis for the solid waste utility examined specific allocation factors for each customer class and determined how costs are divided into various types of service (e.g., collection, disposal, and transfer station).
- City of Santa Paula – Water and Sewer Rate Study:** Completed water and sewer rate studies that included development of sustainable financial plans that focused on balancing the capital improvement needs of the utilities against the financial impact on customers. Worked with the City to develop several capital funding alternatives that balanced the use of cash reserves and rate increases to fund all obligations. The financial plans were then incorporated into the cost-of-service and rate design analyses to develop several rate alternatives for the City’s consideration.
- Suisun-Solano Water Authority – Water Rate Study:** Conducted a comprehensive water rate study for the Authority which consisted of a long-term financial plan that includes the projection of revenues and expenditures on a cash-flow basis to help determine the amount of rate revenue required to maintain reserves at the recommended levels. Worked with Authority staff to develop a plan to fund over \$20 million in necessary capital improvement projects, with a combination of new debt issuances, existing cash reserves, and rate adjustments.
- Mill Valley – Sewer Rate Study:** In the process of preparing a long-term financial plan reflecting the City’s growing concerns about shortfalls due to increased capital improvement costs and its current sewer rate structure, specifically the equitable assignment of costs to commercial customers (i.e., restaurants). Sewer rates will be evaluated to improve revenue stability in the light of current economic conditions as well as recent drought and continuing water conservation efforts. Water consumption data will be used to update commercial rates to assess how consumption has changed in the last few years and how projected water conservation might impact future consumption.
- LADWP – Water Temperature Zone Analysis:** LADWP currently has a four-tiered water-budget based volumetric rate structure that assigns water budgets to each customer based on lot size and temperature zone. As part of LADWP’s Interim Rate Review, evaluated the findings of previous temperature zone assignments to determine potential customer bill impacts of modifying the existing temperature zones. Prepared an analysis of temperature zone impacts on water customers, including a thorough review of the temperature data as well as recent trends related to the number of customers, water use, and water bills by zone, tier, and lot size over the last five years. The primary focus of this study was to see if recent changes in temperature data as defined by LADWP’s current temperature zones warranted changing the customers assigned to each temperature zone, or the criteria used to define each zone.



“Working with Alice was nothing short of extraordinary. Her expertise and responsiveness enabled City staff to express with confidence before the Council on the recent utility rate study.”

*Tai Chau, Assistant Public Works Director/City Engineer
City of Santa Paula*

EDUCATION

- Master of Science, Agricultural Economics, UC Davis
- Bachelor of Science, Agricultural Business Management, California State University, San Luis Obispo

AFFILIATIONS

- Project Management Professional (2002, No. 52367)
- American Water Works Association (AWWA), Member

PROJECTS | CONT.

- **City of Tracy, Tracy, CA – Sewer Rate Studies:** Has prepared sewer rate updates for the City of Tracy since 1979. Originally done to satisfy SRF requirements, more recent updates focused on cost of service studies.
- **City of Sacramento, CA – Sanitary Sewer and Storm Drainage Rate Study:** Project economist on this rate study. The primary focus of the project was to compute rates sufficient to upgrade the combined sewer portion of the system to a 10-year level of protection and prevent combined sewer overflows into the Sacramento and American Rivers.
- **Cities of Stockton, Millbrae, Turlock, Arcata, Wheatland, and Merced, CA:** Developed sewer revenue programs for the cities of Stockton, Millbrae, Turlock, Arcata, Wheatland, and Merced and for the American Canyon County Water District and the Tahoe-Truckee Sanitation Agency.
- **Sacramento Industrial Users Group (Campbell's Soup and Crystal Creamery):** Represented industry in review/revising SRCSD sewer rates.

HIGHLIGHTS

After retiring from Jacobs Engineering as a senior vice-president last fall, Allan Highstreet has since joined NBS as a technical consultant with the highest level of expertise in water-related financial analyses.

Allan is a senior economist with 41 years of experience in financial planning for water, wastewater, and stormwater utilities, including rate studies, project funding, and cost allocations. He has performed economic assessments, cost analyses, finance plans, and rate studies, including preparing loan applications and related documents for many municipal clients.

RELEVANT PROJECT EXPERIENCE

- **Merced Irrigation District, Merced, CA – Water Cost of Service Study:** Prepared a cost of service study that estimated user charges and fees for the water deliveries within the District. Also prepared the Proposition 218 material for the vote to enact the rates.
 - **Byron Bethany Irrigation District, Byron, CA – Water Cost of Service Study:** Prepared a cost of service study that estimated user charges for the water deliveries within the District. Also prepared the Proposition 218 material for the vote to enact the rates.
 - **Westlands Water District, CA – Evaluating Land Based Assessments:** Led an evaluation of possible land based assessments in the District, then prepared an Engineers Report to implement a benefit assessment for the District.
 - **Oakdale Irrigation District, Oakdale, CA – Water Rate Study:** Prepared a cost of service study that estimated user charges for the water deliveries within the District. This study moved the District from a flat rate to tiered volumetric rates to comply with the Water Conservation Act of 2009 (SBx 7-7). Also prepared the Proposition 218 material for the vote to enact rates.
 - **Flood Control User Charges and Financing Plans:** Developed financing plans and user charges for storm drainage and flood control projects, including the City of Sacramento Storm Drainage and Sewer Rate Study, the City of Palo Alto Storm Drainage Enterprise Fund, establishing the City of Tracy's storm drainage charges, a financing plan for the Auburn Ravine Mitigation Plan for Placer County Flood Control District, and a financing plan for the Colma Creek/Guadalupe Canyon master plan for Daly City.
- Other clients Mr. Highstreet has provided similar services include:**
- **City of Anaheim – Storm Drainage Impact Fees and Financial Planning**
 - **City of Millbrae – Sewer Rate Study**
 - **Tahoe Truckee Sanitation Agency – Financial Analyses**
 - **Del Monte and Sun Maid Corporations – Sewer Rate Evaluations for the Selma-Kingsburg-Fowler Sanitation District**
 - **City of Stockton – Sewer Rate Study**
 - **City of Hollister – Wastewater User Charges and Demand Fees**
 - **City of Merced – Water and Sewer Rate Studies**
 - **City of Turlock – Sewer Rate Studies**
 - **Oroville-Wyandotte Irrigation District – Water Rate Study**

EDUCATION

- Master of Business Administration, Finance, University of Redlands
- Bachelor of Science, Chemistry, University of Utah, Salt Lake City

HIGHLIGHTS

- Extensive experience in large-scale data analysis
- Advanced Excel user with the essential skills for complex data analysis and alternative scenario analysis
- More than ten years of accounting experience for large and small businesses
- Experienced consultant with water, sewer and solid waste rate structures
- Experienced consultant with budget management, financial planning and reserve fund analysis



“Jordan has been great to work with on our Five-Year Water and Wastewater Rate Study. She is professional and very responsive to our requests from making last minute updates to the rate model to brainstorming alternative solutions with us.”

*Sunny Wang
Water Resources Manager
City of Santa Monica*



BIOGRAPHY

Jordan Taylor is a Consultant at NBS in our Utility Rate group. She brings more than ten years of experience in finance, accounting, budget planning and system auditing. Jordan graduated with high honors in her Master’s program and spent most of her studies focusing on large-scale financial analysis and data management.

Jordan provides analysis and support on water and sewer utility rate studies for cities and special districts in California. She performs various financial analyses, data management, and utility customer data analysis for utility rate and capacity fee studies. Jordan’s diverse knowledge of managerial accounting is essential to the work performed by NBS.

RELEVANT PROJECT EXPERIENCE

- **Costa Mesa Sanitary District – Solid Waste Rate Study:** This comprehensive rate study included development of a long-term financial plan that evaluated funding options to reduce the annual operating deficit over a five-year period. An evaluation of the District’s solid waste rates, and updated rates were calculated for the three cart sizes that are used by customers in the District and a five-year rate schedule was adopted.
- **Hidden Valley Lakes Community Services District – Water/Sewer Rates & Capacity Fee Study:** Completed an updated water and sewer cost of service study, based on a previous 2015 study conducted by NBS. A key part of this study was addressing significant capital improvement projects and drought-related changes in water consumption patterns. Major tasks included reviewing financial/rate setting policies, preparing financial plans, updating the cost of service analysis, and evaluating alternative rate designs.
- **Idyllwild Water District – Water and Sewer Rate Study:** Prepared water and sewer rate studies, which included developing long-term financial plans that allowed the District to begin funding capital improvement programs for both utilities, and maintain adequate reserves to meet established reserve fund policies. Updated the water rate structure to provide more revenue stability for the District, and implement a cost-based tiered volumetric rate.
- **City of Madera Water, Wastewater, Storm Drainage and Solid Waste Rate Studies:** Completed an updated water and sewer cost of service study, based on a previous 2015 study conducted by NBS. A key part of this study was addressing significant capital improvement projects and drought-related changes in water consumption patterns. Major tasks included reviewing financial/rate setting policies, preparing financial plans, updating the cost of service analysis, and evaluating alternative rate designs.

RELEVANT PROJECT EXPERIENCE | CONTINUED

- **City of Yuba City – Water and Sewer Rate Study Updates:** Perform annual updates of the City’s most recent comprehensive Water and Sewer Financial Plan and Rate Study. Key objectives of the annual updates are to evaluate annual financial status and determine if the City needs to implement the previously approved rate increases, or if a lower increase is possible.
- **City of Lincoln – Sewer and Solid Waste Rate Study:** Prepared long-term financial plans for the City’s Sewer and Solid Waste utilities, which included evaluating debt financing alternatives for sewer collection system and wastewater treatment plant improvements. Since this was the City’s first full cost-of-service analysis for solid waste, Jordan and the project team developed all relevant data necessary to complete the study, including allocating collection, disposal, organics collection, and general and administrative costs.
- **City of McFarland – Water and Sewer Rate Study:** Developed long-term financial plans for the City’s water and sewer utilities that would adequately fund operating, maintenance, and high-priority capital improvement needs, which included expanding the wastewater treatment plant and constructing a new water well. Worked with the project team to update the rate structures to reflect the cost of providing service to each customer class and current industry standards.
- **City of Morgan Hill – Wastewater Rate Study:** Prepared a financial plan for the 2018 wastewater rate study update, which included budget analysis, cash flow projections, and a detailed evaluation of capital funding options. The study evaluated debt financing alternatives to fund \$87 million in capital improvements for pipeline replacement and a treatment plant expansion.
- **City of Sacramento – Development Impact Fee Study:** Conducted an extensive update of water, sewer, and storm drainage system capacity charges. This study addressed City policies and overall objectives in developing connection fee alternatives for the City to consider. Key tasks included preparing financial/rate setting policies, financial plans, projecting capital revenue requirements, cost-of-service analyses, and alternative fee methodologies.
- **City of Seal Beach – Water and Sewer Rate Study:** Prepared financial plans for the City’s water and sewer utilities to ensure sufficient funding was available for operating, maintenance, capital improvement needs and to maintain appropriate reserve funds. Developed cash flow analyses and capital improvement program funding options that balanced the use of rate increases with potential debt financing to minimize the impact to ratepayers.
- **City of Santa Monica – Water and Wastewater Rate and Capital Facility Fee Study:** Developed long-term financial plans for the City’s water and wastewater utilities that balanced meeting operating, maintenance, and capital needs along with maintaining adequate reserve funds. Worked with the project team to develop capital funding options for the City’s \$200 million Sustainable Water Infrastructure project by balancing outside debt financing, interfund loans, use of existing reserve fund balances, and rate increases. Developed updated rate structures which included collecting a greater percentage of revenue from fixed water meter charges, incorporating a modest fixed charge in the wastewater rate structure and developing tiered volumetric water rates based on the City’s sources of water supply. Conducted a thorough analysis of water usage patterns and updated the wastewater discharge factors to reflect low water usage periods.

EDUCATION

- Master of Science, Environmental Engineering, Syracuse University
- Bachelor of Science, Civil Engineering, University of Notre Dame
- Certificate, Advanced Study in Sustainable Enterprise, Syracuse University

PROFESSIONAL AFFILIATION

- American Society of Civil Engineers

HIGHLIGHTS

- Experience in both public and private sectors
- Civil engineering design
- Utility master planning
- Development review
- Mapping and analysis in ArcGIS
- AutoCAD

BIOGRAPHY

Jeremy Tamargo has nearly a decade of professional civil engineering experience in both the public and private sectors. *He is a licensed professional engineer in the State of Oregon and has an application in technical review with the California Board for Professional Engineers, Land Surveyors, and Geologists for comity licensure in the State of California.

Jeremy's recent experience as an Assistant City Engineer and Principal Engineer included the following activities:

- Supervising, planning, designing, and inspecting all phases of civil engineering public works construction projects
- Defining the scope of the project; securing adequate funding from Federal and State grant programs and other funding sources
- Coordinating with permitting and public utility agencies
- Performing historical document research and review
- Surveying and engineering analysis of alternatives
- Preparing plans, specifications, and cost estimates
- Performing research, map, and field studies and surveys
- Drafting site plans with specialized computer software
- Applying engineering principles and practices to specific problems
- Coordinating construction schedules with other projects and agencies
- Preparing and reviewing cost estimates and inspecting construction of projects to ensure compliance with construction documents
- Reviewing compliance criteria for the design and construction of streets, sidewalks, and public utilities

Jeremy also has experience in civil engineering design and preparing utility management plans for both private and public developments. Specific duties included:

- Site characterization
- Delineating drainage basins
- Performing hydrologic calculations
- Designing stormwater facilities to meet water quality and water quantity standards
- Conveyance modeling
- Inlet capacity calculations
- Creating operations and maintenance plans

EDUCATION

- Bachelor of Arts, with honors, Economics, Mills College
- Continuing education from UC Davis, UCLA, CDIAC, etc.

HIGHLIGHTS

- Registered Municipal Advisor Representative
- 22 years of experience
- Bond Issuance Modeling & Disclosure
- Expert Special Tax Consultant
- Assessment District Formation
- Reassessment Consulting
- Proposition 218

AFFILIATIONS

- California Society of Municipal Finance Officers (CSMFO)
- California Special Districts Association (CSDA)
- Committee on Special Assessments, Taxes and Other Financing Facilities (CASTOFF)
- Women in Public Finance (WPF)

SPEAKING / MEDIA

- Maintenance Services Funding: A Finance/Public Works Convo, 2023 CSMFO Annual Conference
- Leading Your District through Financing Facilities and Fund Services with a Tax Measure 2022 CSDA GM Summit and Webinar
- Revenue Recovery: From Riches to Rags, and Back to Riches? 2022 CSMFO Annual Conference
- Show Me More Money: Optimizing Revenues in a Post-COVID World. 2022 CSMFO Annual Conference

BIOGRAPHY

Sara Mares is a Director with NBS and a Registered Municipal Advisor Representative. She has extensive experience with modeling and structuring revenue mechanisms that support debt issuance. Sara forms Special Financing Districts (SFDs), including Community Facilities Districts and 1913 Act Assessment Districts, which provide land secured financing for limited obligation bonds. She has also provided bond issuance disclosure related to revenue bonds, both stand-alone that are secured by utility rate revenue or as part of a pool bond structure. Sara also has more than 20 years of experience preparing and disseminating continuing disclosure annual reporting and listed event filings.

RELEVANT PROJECT EXPERIENCE

- **City of Rio Vista CFD Formation and Bond Issuance Disclosure.** Complex Workout including refinancing existing CFD debt, formation of a new CFD to restructure a portion of the existing CFD debt and funding of additional services. CFD Formation and Bond Issuance completed in 2018.
- **City of Patterson Water and Wastewater Revenue Bond Disclosure.** Continuing annual disclosure report filings for water revenue bonds, wastewater revenue bonds, land secured bonds and lease revenue bonds. Timely filings made annually, including notices of listed events as applicable.
- **City of American Canyon CFD Formation and Bond Issuance.** Analysis and formulation of special tax rate and method of apportionment structure. Data analysis and bond issuance disclosure data provided for debt issue.
- **United Water Conservation District Feasibility and Revenue Options Analysis.** Review CIP project list to determine available financing options and potential rate structures, including modeling of various rates.



“Thank you so much for all of your guidance, advice and support this year. We definitely wouldn't have been able to accomplish this amazing feat without your experience and knowledge!” Nikki Winslow, Library District Director, Altadena Library District

EDUCATION

- Bachelor of Science, Business Administration - Management, California State University, San Marcos

HIGHLIGHTS

- Three years of public budget development and administration, professional-level research, project management, and financial analysis
- More than 12 years of compliance management

AFFILIATIONS / AWARDS

- California Parks and Recreation Society (CPRS) - District 12 "Parks Make Life Better Spotlight – Event" Award Recipient, 2022

BIOGRAPHY

Evan Hoenig is a Project Analyst at NBS where he assists in the formation and administration of various types of Special Financing Districts (SFDs). He performs large-scale data analysis and validation, and researches fee comparisons. Evan has more than a decade of compliance management experience, as well as public budget development and administration, research, project management and financial analysis experience. He has extensive skills in analytical software, databases, and spreadsheets.

RELEVANT PROJECT EXPERIENCE

Evan has consulted and served on many projects, including the following:

- **GEMT Supplemental Reimbursement Program – FY18-19, FY19-20, and FY 20-21:** Conducted detailed cost allocation, indirect cost rates, large database management, and time on task estimates. Submitted final cost reports to the State of California for review and approval.
- **Contra Costa County – Environmental Health Fee & Hazmat Comparison:** Completed a Fee Comparison for Environmental Health & Hazmat fees. Evan's role on this project included fee research, data collection, database management and analysis.
- **San Jacinto – Cost Estimation Tool:** Provided in-depth research and analysis on capital assets and improvements, interpreted and organized data, and assigned and evaluated costs.
- **City of Fairfield – Lighting, Landscape, and Maintenance Districts ("LLMD"):** Established databases of over 6,800 parcels within nine LLMDs using County Assessor data as well as other available resources. Conducted general and special benefit analyses, and utilized parcel data to calculate the resulting assessments.

EDUCATION

- Bachelor of Science, Business Administration/Finance, California State University San Bernardino
- Advanced Public Engagement for Local Government Program, Pepperdine School of Public Policy
- Planning for Effective Public Participation Program, International Association for Public Participation

HIGHLIGHTS

- Skilled public engagement specialist
- Experienced communications professional
- Seasoned consultant in Special Financing District (SFD) formation and administration
- Outreach
- Public Engagement
- Collaborative Governance
- Adaptive Management
- Two decades of experience

AFFILIATIONS

- California Public Information Officials (CAPIO)
- California Society of Municipal Finance Officers (CSMFO)
- Municipal Management Association of Southern California (MMASC)
- Women in Public Finance (WPF)

BIOGRAPHY

Danielle Wood is a Director with NBS where she provides public engagement, outreach, and collaborative governance client services and project management efforts for a number of our clients. She has two decades of experience working with local governments and communities across California.

RELEVANT PROJECT EXPERIENCE

- **Downtown San Mateo Association District Public Engagement Services for PBID Renewal.** Public Engagement services for the renewal of a new Property Business Improvement District (PBID). Created a framework for outreach efforts that resulted in increased cooperation from business owners. Developed a comprehensive website to better inform business owners about the District's initiatives and how they can benefit from them. Interviewed business owners via phone and online surveys, allowing for tailored and consistent messaging.
- **City of Oxnard Ongoing Long-term Outreach, Public Engagement and Collaborative Governance Services.** Public engagement plan development for the evaluation of existing land secured financing districts that includes items such as a dedicated webpage, email campaign, advisory committee formation and collaborative governance program. There are more than 21 communities that have participated in our surveys, community meetings and ongoing development, and complete restructuring of the Landscape Maintenance Districts. Project started in 2019 and is ongoing.
- **City of La Habra Heights Ongoing Public Engagement Services.** Community engagement for a recently formed Benefit Assessment District (BAD), including a public engagement plan, webpage development, web maps, and other engagement services. Project started in 2018 and is ongoing.
- **City of San Leandro Outreach and Public Engagement Services.** Outreach and public engagement services to gauge overall property owner support for the formation of an Assessment District. Public engagement efforts have included items such as the creation of a dedicated public engagement webpage, multiple information releases, surveys, recorded meetings, and community participation web maps. Project started in 2019 and is ongoing.
- **City of Culver City Outreach Services.** Outreach and Public Engagement services for the formation of a new Property Business Improvement District for a very unique community within the City. Outreach services included an area profile analysis, a public informational mailer and survey, and in person and virtual public meetings. Project started in 2018 and is ongoing.



“We greatly appreciate your follow up, follow through and commitment to our community! We all desire to live well and thrive for the good of the whole city!”

Property Owner, City of Oxnard

AWARDS

- California State PTA recognition for Education Advocacy
- League of Women Voters of Santa Monica award for Community Leadership

HIGHLIGHTS

- Experienced communications professional
- Skilled public engagement specialist
- Seasoned consultant for local government funding issues
- Outreach
- Public engagement
- Two decades of experience

BIOGRAPHY

Rochelle Lewis is a Senior Engagement Consultant at NBS where she provides public engagement, outreach, and collaborative governance client services and project management. She has more than two decades of experience working with local public agencies and communities across California.

Rochelle's extensive consulting experience includes the following:

- Establishing relationships with elected officials and local government staff, public and private sector association members, and community organization leaders
- Building and managing coalitions of education, labor, taxpayer, transportation, business, and other interests to find consensus among groups toward shared goals
- Managed informational communications, community member and key stakeholder outreach for dozens of local government agencies. For example:
 - **City of Sacramento Informational Communications**
Public engagement and communications services for a proposed Stormwater Fee. Created a framework, messaging and materials for outreach efforts that resulted in a high level of engagement with community, business, and labor in the development of a new stormwater fee to protect local water quality.
 - **City of Santa Monica Outreach and Communications**
Stakeholder outreach and communications for multiple local funding proposals, including sales tax, documentary transfer tax, and transient occupancy tax. Created webpage content, mailings, and consistent messaging.

EDUCATION

- Bachelor of Arts, Liberal Arts, California State University Channel Islands

EXPERTISE

- Adobe CC
- Photoshop
- Illustrator
- InDesign
- Premiere and After Effects
- Microsoft Office, G Suite
- Constant Contact
- Mail Chimp
- Infusionsoft
- Harvest
- Basecamp
- Teamwork
- WordPress
- Zoom
- GoToWebinar
- Google Meet

BIOGRAPHY

John Savage has a decade of professional experience in public engagement, outreach, project management, and relationship management. An experienced writer, editor, and designer, he is adept at content creation for web and print media.

John's approach is centered around cultivating authentic relationships with target communities and key stakeholders and using meaningful data acquired about the target audience to develop strategic and effective messaging to build trust and promote engagement.

RELEVANT PROJECT EXPERIENCE

- **County of Stanislaus:** Facilitate community outreach and public engagement opportunities for the investment of ARPA funds in the infrastructure of unincorporated communities. Identify suitable venues to host community workshop series, working directly with County staff and community members. Public engagement services include surveys, targeted content updates, neighborhood walks, community workshops, participation web maps, and a comprehensive report of findings and recommendations.
- **City of Pomona:** NBS attended public meetings, developed outreach materials, and conducted the ballot proceedings for 3,291 parcels regarding a Prop 218 balloting increase for the Phillips Ranch area of Pomona. The original assessment rates had not changed since 1994 and the most recent attempt to increase the rates in 2008 failed. Facing significant shortfalls in funds available to maintain the improvements and changes in legislation that required entirely new compliance standards, NBS assisted the City in developing a new assessment district. The Engineer's Report included a full benefit analysis of the community and improvements to meet current rigorous requirements.
- **City of Fairfield:** Facilitate community outreach and engagement with residents in Landscaping and Lighting Maintenance Districts to gather feedback, questions, and concerns. Public engagement services include surveys, informational postcards, and community meetings.

APPENDIX B | SAMPLE STUDY/REPORT

Published Report Samples

To view final published reports as prepared by NBS, please follow the links below:

City of Redding:

<https://www.cityofredding.org/home/showpublisheddocument/9836/636148883545300000>

City of Santa Paula:

<https://www.spcity.org/DocumentCenter/View/84/Final-Rate-Study-Report-PDF>

City of Madera (Water):

https://www.madera.gov/wp-content/uploads/2022/04/Madera_Water-Rate-Study-Report_FINAL2.pdf

City of Madera (Wastewater):

https://www.madera.gov/wp-content/uploads/2022/04/Madera_Sewer-Rate-Study-Report_FINAL2.pdf

City of Victorville (Water):

<https://www.victorvilleca.gov/home/showpublisheddocument/6967/637636619408100000>

Suisun-Solano Water Authority:

https://www.suisun.com/wp-content/files/SSWA_Draft_Rate_Study_Report_07-22-2021.pdf

Aerial view of Groveland Community Services District via Google Earth



GROVELAND COMMUNITY SERVICES DISTRICT

Cost Proposal for:

Combined Water and Sewer Cost of Service / Rate Study

March 6, 2023



Prepared by:

nbsgov.com



870 Market Street, Suite 1223
San Francisco, CA 94102
Toll free: 800.434.8349

www.nbsgov.com

March 6, 2023

Jennifer Donabedian
Administrative Services Manager
Groveland Community Services District
18966 Ferretti Road
Groveland, CA 95321

RE: Proposal for Combined Water and Sewer Cost of Service / Rate Study

Dear Ms. Donabedian,

Thank you for considering our proposal for the District's Combined Water and Sewer Cost of Service / Rate Study. The information to follow summarizes our pricing for this study. As requested in the RFP, we have included a separate fee for Public Outreach/Proposition 218 Assistance.

Please do not hesitate to contact me at 800.434.8349 or at abou@nbsgov.com if you have any questions about our cost proposal.

Sincerely,

A handwritten signature in blue ink that reads "Alice Bou".

Alice Bou
Project Manager

A handwritten signature in blue ink that reads "Michael Rentner".

Michael Rentner
President / Authorized Signer

helping communities fund tomorrow

COST PROPOSAL

Our professional fees are based on our understanding of the District’s needs and the effort we believe is necessary to complete the scope of services described in our proposal. Work will be performed on a time and materials basis, at the hourly labor rates shown in the budget table below with a not-to-exceed fee of \$73,650. **Additional services requested**, such as additional public meetings or additional rate or fee alternatives, can be provided based on these hourly labor rates. All tasks would be mutually agreed upon by NBS and the District prior to proceeding.

PROJECT BUDGET: GROVELAND CSD WATER & SEWER COS RATE STUDY							
Study Tasks	Consultant Labor (Hours)					Grand Totals	
	Senior Review ¹ (Highstreet)	Project Manager (Bou)	Engineering Review (Tamargo)	Consultant (Taylor)	Analyst (Hoenig)	Consultant Labor (Hrs.)	Consultant Costs (\$)
Hourly Rate	\$250	\$175	\$225	\$175	\$150		
Water and Sewer Rate Tasks (costs shared equally between water and sewer)							
Task 1 – Kick-off Meeting & Data Collection	1.0	6.0	2.0	2.0	12.0	23.0	\$ 3,900
Task 2 – Financial Plan and Revenue Requirements	2.0	16.0	2.0	16.0	32.0	68.0	\$ 11,350
Task 3 – Cost-of-Service Analysis (COSA)							
3.1 – COSA: Water Utility	2.0	20.0	2.0	12.0	16.0	52.0	\$ 8,950
3.2 – COSA: Sewer Utility	2.0	20.0	8.0	12.0	16.0	58.0	\$ 10,300
Task 4 – Rate Design Analysis							
4.1 – Develop Rate Design Recommendations	2.0	8.0	-	-	-	10.0	\$ 1,900
4.2 – Analysis of Consumption and Conservation	1.0	8.0	-	8.0	16.0	33.0	\$ 5,450
4.3 – Calculate Fixed & Volumetric Charges	2.0	16.0	2.0	20.0	4.0	44.0	\$ 7,850
4.4 – Calculate Drought Rates	1.0	8.0	-	-	-	9.0	\$ 1,650
4.5 – Comparison of Customer Bills	1.0	4.0	-	24.0	6.0	35.0	\$ 6,050
Task 5 – Prepare Written Study Reports	6.0	28.0	4.0	6.0	-	44.0	\$ 8,350
Task 6 – Meetings and Presentations							
6.1 – Progress Meetings with Staff	4.0	12.0	-	4.0	2.0	22.0	\$ 4,100
6.2 – Public Workshop (One) (Recommended)	2.0	8.0	-	-	-	10.0	\$ 1,900
6.3 – Presentation to the Board (One)	2.0	8.0	-	-	-	10.0	\$ 1,900
GRAND TOTAL NOT TO EXCEED	28.0	162.0	20.0	104.0	104.0	418.0	\$ 73,650
Additional Costs:							
Travel Costs Per In-Person Meeting (not to exceed) ²							\$ 1,000
Total: Per In-Person Meeting							\$ 1,000
Additional Costs for Optional Site Visits and Presentations							
Labor Cost Per Visit/Presentation		6.0					1,500
Travel Expenses per Meeting (not to exceed)							1,000
Total: Per Optional Visit/Presentation							\$ 2,500

1. If time is required for municipal advisor services (Sara Mares), senior review hours would be utilized.
2. Travel-related cost and direct reimbursable expenses; all other expenses are included in labor rates. This cost will be \$0 if all meetings and presentations are held remotely.

We note that this proposed study budget does not include multiple revisions to the District data, such as budgets, capital improvement costs, consumption, and/or customer account data, or multiple changes to rate alternatives or draft reports. If the planned hours for those activities exceed those shown above in the proposed budget, such activities will be considered out-of-scope work and will require additional budget to complete such additional work.

PROPOSITION 218 PROCESS AND PUBLIC HEARING SUPPORT (PUBLIC ENGAGEMENT/OUTREACH)

Proposition 218 Noticing	\$3,100
Engagement Fee	\$34,000
Estimated Expenses	\$7,000
Total Including Expenses.....	\$44,100

EXPENSES

Customary out-of-pocket expenses will be billed to the District at the actual cost to NBS. These expenses may include, but not be limited to, telephone, travel, and meals.

Printing, mailing fulfillment, and postage expenses are anticipated to be covered by the District.

TERMS

Public Engagement services will be invoiced monthly. Expenses will be itemized and included in the next regular invoice. If either party prematurely terminates the project, NBS shall receive payment for work completed. Payment shall be made within 30 days of the submittal of an invoice. If payment is not received within 90 days, simple interest will accrue at 1.5% per month. Either party can cancel the consulting contract with 30 days written notice.

INVOICING

We invoice on a monthly basis, following recorded consultant time on the project, paralleling our completion of the work. At no time will we invoice for charges in excess of the fee to which Groveland Community Services District and NBS mutually agree. Should the District specifically request additional services beyond those described in this document, we will discuss those requests and associated costs at that later time and only invoice for additional fees upon separate written authorization from the District.



BOARD MEETING AGENDA SUBMITTAL

TO: GCSD Board of Directors

FROM: Peter J. Kampa, General Manager

DATE: March 14, 2023

SUBJECT: Agenda Item 7B: Designating a Board Member to Serve on the Tuolumne Stanislaus Regional Water Management JPA Board of Directors and to Appoint a Staff Member to Tuolumne Stanislaus Watershed Advisory Committee

RECOMMENDED ACTION:

Staff recommends the following action:

I move to appoint Director Mora to be the primary for the Tuolumne-Stanislaus Regional Water Management JPA, and to appoint Rachel Pearlman as the primary for WAC, and to appoint Peter Kampa as the alternate to both.

BACKGROUND:

Director Edwards has been the District's representative for the Tuolumne Stanislaus Regional Water Management JPA since February 12, 2019, and recently resigned on February 15, 2023. In order for the District to maintain its membership, the Board must formally appoint new representation. IRWM meetings are held on the second Wednesday of the month at 9am in Sonora.

It is being recommended that Director Mora be appointed to replace Director Edwards as the primary representative for the District for the Tuolumne-Stanislaus Regional Water Management JPA, and that Rachel Pearlman be appointed as the District's primary representative for the WAC. It is further recommended that Pete Kampa be appointed as the District's alternate representative for both.

JPA Bylaws:

The Authority shall be governed by a Board of Directors which is hereby established, and which shall be composed of one representative of each of the Members, and who shall be selected and designated in writing by the governing body of the respective party from among the elected members of that party's governing body, where applicable. Each party, in addition to appointing its member to the Board, shall appoint at least one alternate to the Board who shall be a director, officer or employee of that party, but need not be an elected member of that party's respective governing body. The role of each alternate Director shall be to assume the duties of the Director appointed by his/her member entity in case of the absence or unavailability of such Director.

WAC Bylaws:

Each Member and each Interested Party may appoint one member to the WAC. In addition to appointing a member to the WAC, each Member and each Interested Party may appoint at least

one alternate to the WAC. Members and alternates shall be designated in writing by the respective governing body of each appointing entity.

Attachments:

1. JPA Board Member Designation Form
2. T-S WAC Member ID Form

Tuolumne -Stanislaus Integrated Regional Water Management Joint Powers Authority Board Member Designation Form

As stated in the T-S IRWM Agreement, appointment to JPA board positions, including alternate positions, must be done in writing. Completion of this form, accompanied by the signature of an authorized representative of your agency or tribe will fulfill that requirement.

Continuity of participation and familiarity with issues are very important to the success of the JPA. It is the responsibility of the member and the alternate to remain fully briefed on issues coming before the board. If there is a change in the designated member and/or alternate, a new designation form must be submitted. Only the member or alternate named on this form are authorized to participate on the JPA board.

Please print.

Signing Agency/Tribe:

Board Member's Name: _____

Email: _____

Work Phone: _____ **Mobile:** _____

Alternate's Name: _____

Email: _____

Work Phone: _____ **Mobile:** _____

Authorizing Signature: _____

Date: _____

T-S IRWM Watershed Advisory Committee Sign-up Form

In an effort to clarify roles, each agency/organization wishing to participate in the Tuolumne-Stanislaus Integrated Regional Water Management Joint Powers Authority Watershed Advisory Committee (WAC) is requested to complete this form thereby designating the individual who will participate in the WAC on behalf of the agency/organization. This person will be referred to as the “member” and will be expected to actively participate in the meetings and associated activities of the WAC. It is each member’s responsibility to confirm he/she has permission to represent the named agency/organization and is willing to serve as its liaison, communicating information to and from the agency/organization. There is a \$200 membership fee per fiscal year.

Continuity of participation is very important. However, it is understood there may be occasions when a member’s attendance is not possible. Please name an “alternate” to whom you give permission to act on your behalf. It is the responsibility of the member and the alternate to remain fully briefed so as not to cause the group to revisit items previously considered. It is the member’s responsibility to forward relevant materials and other information to the alternate. If there is a change in the designated member or alternate/s it must be noted on this form. Only the member and alternate/s indicated on this form are entitled to vote on an action item.

Please print.

Signing Organization/Agency/Constituency:

Member Name: _____

Email: _____

Work Phone: _____ **Mobile:** _____

Alternate’s Name: _____

Email: _____ **Phone:** _____

Additional Alternate’s Name:

Email: _____ **Phone:** _____

Member’s Signature: _____ **Date:** _____



BOARD MEETING AGENDA SUBMITTAL

TO: GCS D Board of Directors

FROM: Peter J. Kampa, General Manager

DATE: March 14, 2023

SUBJECT: Agenda Item 7C: Adoption of a Resolution Approving the Environmental Documents for the Groveland Community Services District Drought Improvements Project

RECOMMENDED ACTION:

Staff recommends the following action:

I move to adopt Resolution 13-2023 approving the Mitigated Negative Declaration for the Groveland Community Services District Drought Improvements Project.

BACKGROUND:

Groveland CSD is proposing to implement improvements to the drinking water infrastructure in Big Oak Flat, Groveland, and the Pine Mountain Lake communities in Tuolumne County, CA. The proposed Project involves installing two new groundwater wells, installing a new water storage tank and distribution line, relocating the alternate water supply water treatment system, and improving the alternate water supply intake. The purpose of the Project is to ensure an adequate water supply during drought conditions.

PROPOSED ACTIONS

The proposed Project consists of the following components:

- Installing a hard rock groundwater well adjacent to an existing storage tank (Tank 5).
- Installing a 140,000-gallon storage tank next to Tank 5 and 5500 linear feet of 8-inch water distribution pipeline from Tank 5 to Big Oak Flat.
- Relocating the existing trailer mounted alternate water supply treatment system to a permanent location and installing an interconnection pipeline between the new and existing locations.
- Installing a hard rock groundwater well at the alternate water supply treatment system permanent location.
- Installing a slide gate on the alternate water supply intake.

ENVIRONMENTAL REVIEW

The Project is subject to the requirements of the California Environmental Quality Act (CEQA) and other regulatory environmental requirements. Groveland's Project Engineer (AM Consulting Engineers) retained the services of Crawford & Bowen Planning, Inc. to prepare the required CEQA documentation and associated studies.

The MND analyzed all environmental topics from the CEQA Guidelines Appendix G checklist, and the evaluation included surveys for biological and cultural resources.

The Project CEQA document processing will include a public meeting (today) and review/adoption of a Mitigated Negative Declaration (MND). In accordance with CEQA, the MND was noticed in *The Union Democrat* on February 10, 2023 and the document was circulated to the State Clearinghouse. The required 30-day review period was from February 10, 2023 to March 13, 2023. One comment letter was received from the State Water Board. The letter identified some discrepancies in the project description. This pertained to the withdrawal of groundwater and discharges associated with the Project. The document has been revised to reflect these clarifications.

Once the public meeting occurs and the MND is adopted, Groveland CSD's consultants will file a Notice of Determination with the County Clerk's Office and with the State Clearinghouse.

FINANCIAL IMPACT:

Costs associated with the Drought Improvements Project will be covered in full by a Department of Water Resources Urban and Multi benefit Drought Relief grant.

ATTACHMENTS:

1. Resolution 13-2023
2. CEQA Document and Attachments

RESOLUTION NO. 13-2023

RESOLUTION OF THE BOARD OF DIRECTORS OF THE GROVELAND COMMUNITY SERVICES DISTRICT ADOPTING THE MITIGATED NEGATIVE DECLARATION FOR THE GROVELAND COMMUNITY SERVICES DISTRICT DROUGHT IMPROVEMENTS PROJECT

WHEREAS, the Board of Directors of the Groveland Community Services District (the “Board” and “District”, respectively) has received and reviewed the proposed Mitigated Negative Declaration, including the draft Initial Study/Mitigated Negative Declaration with appendices, and supporting information sources (collectively, the “draft MND”), together with the staff report and any comments received and responded to during the public review and hearing process (collectively, the “Environmental Record”) for the proposed construction and operation of the District’s drought improvements project (the “Project”), as described in the draft MND; and

WHEREAS, the District is the lead agency for purposes of environmental review of the Project under the California Environmental Quality Act (“CEQA”), pursuant to Public Resources Code § 21000 et seq., and the State “Guidelines for Implementation of the California Environmental Quality Act”; and

WHEREAS, the Project could, without mitigation, have resulted in a potential impact to certain areas of environmental concern, including Biological Resources and Cultural Resources; and

WHEREAS, the District has prepared mitigation measures to address and mitigate all potential environmental impacts to a “less than significant” level, which is a part of the Environmental Record reviewed and considered by the District; and

WHEREAS, the District has incorporated the mitigation measures described in the initial study for the Project (“Initial Study”) as conditions of approval by the District; and

WHEREAS, with the exception of the potential impacts stated above, there are no other potentially significant environmental impacts resulting from the Project; and

WHEREAS, the District submitted a Notice of Intent to Adopt a Mitigated Negative Declaration to the State Clearinghouse (#2023020239) and distributed it to those agencies which have jurisdiction by law with respect to the Project; and placed the Notice of Intent to Adopt a Mitigated Negative Declaration concerning the Project in the *Union Democrat* for publication on February 10, 2023; and

WHEREAS, the draft Initial Study/Mitigated Negative Declaration with appendices and supporting information sources were duly noticed for 30-day public review and comment from February 10, 2023 to March 13, 2023, as provided by law; and

WHEREAS, the District received one written comment in response to the draft MND, which was addressed in the Final MND; and

WHEREAS, a hearing concerning the District’s intent to adopt a final MND and MMRP was duly noticed and held on March 14, 2023, at which time any interested parties were afforded an opportunity to be heard in addition to the public review and comment period referenced above as part of the Environmental Record; and

WHEREAS, the District has considered, prior to adoption of the final MND, the Environmental Record in support of the final MND.

THEREFORE, BE IT RESOLVED that the Board finds, determines and resolves as follows:

SECTION 1. The Board adopts the foregoing recitals as true and correct.

SECTION 2. The Board finds that the Initial Study and Mitigated Negative Declaration reflect the independent judgment of the District as the lead agency for the Project.

SECTION 3. The Board finds that it has independently reviewed and considered the Environmental Record, including the Initial Study and proposed Mitigated Negative Declaration, as a final Mitigated Negative Declaration, prior to adopting the final Mitigated Negative Declaration.

SECTION 4. On the basis of the Environmental Record as the whole record before the Board, including the Initial Study and any comments received, the Board finds, in its independent judgment and analysis, that there is no substantial evidence the Project will have a significant effect on the environment.

SECTION 5. The Board confirms that the mitigation measures described in the Initial Study, have been incorporated into the Project and adopts a Mitigated Negative Declaration, as the final Mitigated Negative Declaration, which documents are a part of the Environmental Record before the Board for the Project.

SECTION 6. The Board approves and adopts the findings set forth herein, and the Mitigated Negative Declaration, based on the Environmental Record.

SECTION 7. Groveland CSD staff is authorized and directed to cause a Notice of Determination concerning the adoption of the Mitigated Negative Declaration for the Project to be filed in the office of the Tuolumne County Clerk and with the Office of Planning and Research in accordance with CEQA and State CEQA Guidelines.

This foregoing resolution is hereby approved and adopted at a regular meeting the Board of Directors of the Groveland Community Services District held on the 14th day of March, 2023 by the following vote:

AYES:

ABSENT:

APPROVE:

Nancy Mora, Board President

ATTEST:

Rachel Pearlman, Board Secretary



MITIGATED NEGATIVE DECLARATION

Groveland Community Services District
Drought Improvements Project

February 2023

PREPARED FOR:



Groveland Community Services District
18966 Ferretti Road
Groveland, CA 95321

PREPARED BY:



Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 310
Visalia, CA 93291

Initial Study/Mitigated Negative Declaration
Groveland Community Services District
Drought Improvements Project

Prepared for:

Groveland Community Services District
18966 Ferretti Road
Groveland, CA 95321

Contact: Peter Kampa, General Manager
(209) 962-7161, ext. 1024

Prepared by:



Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291

Contact: Travis Crawford, AICP
(559) 840-4414

February 2023

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Chapter 1

INTRODUCTION

INTRODUCTION

1.1 Project Summary

This document is the Initial Study/Mitigated Negative Declaration describing the potential environmental effects of the proposed Groveland Community Services District's (CSD) Drought Improvements Project. The CSD is proposing to implement improvements to the drinking water infrastructure in Big Oak Flat, Groveland, and the Pine Mountain Lake communities in Tuolumne County, CA. The proposed Project involves installing two new groundwater wells, installing a new water storage tank and distribution line, relocating the alternate water supply water treatment system, and improving the alternate water supply intake. The purpose of the Project is to ensure an adequate water supply during drought conditions. The proposed Project is more fully described in Chapter Two – Project Description.

The Groveland Community Services District will act as the Lead Agency for this project pursuant to the *California Environmental Quality Act (CEQA)* and the *CEQA Guidelines*.

1.2 Document Format

This IS/MND contains five chapters, and appendices. Section 1, Introduction, provides an overview of the project and the CEQA environmental documentation process. Chapter 2, Project Description, provides a detailed description of project objectives and components. Chapter 3, Initial Study Checklist, presents the CEQA checklist and environmental analysis for all impact areas, mandatory findings of significance, and feasible mitigation measures. If the proposed project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why no impacts are expected. If the project could have a potentially significant impact on a resource, the issue area discussion provides a description of potential impacts, and appropriate mitigation measures and/or permit requirements that would reduce those impacts to a less than significant level. Chapter 4, Mitigation Monitoring and Reporting Program, provides the proposed mitigation measures, completion timeline, and person/agency responsible for implementation and Chapter 5, List of Preparers, provides a list of key personnel involved in the preparation of the IS/MND.

Environmental impacts are separated into the following categories:

Potentially Significant Impact. This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce

impacts to a less than significant level. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.

Less Than Significant After Mitigation Incorporated. This category applies where the incorporation of mitigation measures would reduce an effect from a “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less Than Significant Impact. This category is identified when the project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact. This category applies when a project would not create an impact in the specific environmental issue area. “No Impact” answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis.)

Regardless of the type of CEQA document that must be prepared, the basic purpose of the CEQA process as set forth in the CEQA Guidelines Section 15002(a) is to:

- (1) Inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities.
- (2) Identify ways that environmental damage can be avoided or significantly reduced.
- (3) Prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible.
- (4) Disclose to the public the reasons why a governmental agency approved the project in the manner the agency chose if significant environmental effects are involved.

According to Section 15070(b), a Mitigated Negative Declaration is appropriate if it is determined that:

- (1) Revisions in the project plans or proposals made by or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and

- (2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.

The Initial Study contained in Section Three of this document has determined that with mitigation measures and features incorporated into the project design and operation, the environmental impacts are less than significant and therefore a Mitigated Negative Declaration will be adopted.

Chapter 2

PROJECT DESCRIPTION

Project Description

2.1 Location

The proposed Project will take place in three adjacent communities; Big Oak Flat, Groveland, and Pine Mountain Lake, in western Tuolumne County, CA (see Figure 1). The three communities are within the Groveland Community Services District (CSD). Big Oak Flat and Groveland lie along State Route 120 and east of State Route 49. Pine Mountain Lake is located north of State Route 120 and west of Groveland. Yosemite National Park lies approximately 23 miles southeast of the Project sites. Project elevation ranges from approximately 2800 feet to approximately 3100 feet above mean sea level. The proposed Project is located in Township 1S, Range 16E, Sections 20, 21, 23, 27, 29 and 30, MDB&M and proposed improvements are shown in Figures 2 through 5. The locations of each Project component are described in more detail in the Setting and Surrounding Land Use discussion below.

2.2 Setting and Surrounding Land Use

The Project is in and adjacent to Big Oak Flat, Groveland, and the Pine Mountain Lake subdivision of Groveland in Tuolumne County, California (Figure 1). Specifically, the groundwater well and 140,000-gallon water storage tank will be constructed at the existing Tank 5 site at 18790 Vernal Drive (Figure 2). An 8-inch water distribution pipeline will run from the new water storage tank to Big Oak Flat via Vernal Drive, Merrell Road, Harper Road, and Black Road (Figure 3). The existing trailer mounted alternate water supply treatment system will be relocated from the Pine Mountain Lake maintenance yard at 12756 Mueller Drive to a new location adjacent to an abandoned baseball field at 19000 Ferretti Road (Figure 4). An interconnection pipeline will run between the new and existing locations via Par Court, Mueller Drive, Ferretti Road, and Flint Court. A new hard rock groundwater well will also be installed at the 19000 Ferretti Road work site. A slide gate will be installed on the alternate water supply intake adjacent to Pine Mountain Lake at Dunn Court Beach in the Pine Mountain Lake subdivision (Figure 5).

2.3 Project Description

The Groveland CSD is proposing to improve drinking water infrastructure in Big Oak Flat, Groveland and Pine Mountain Lake. The proposed Project consists of the following components:

- Installing a hard rock groundwater well adjacent to an existing storage tank (Tank 5).
- Installing a 140,000-gallon storage tank next to Tank 5 and 5500 linear feet of 8-inch water distribution pipeline from Tank 5 to Big Oak Flat.
- Relocating the existing trailer mounted alternate water supply treatment system to a permanent location and installing an interconnection pipeline between the new and existing locations.
- Installing a hard rock groundwater well at the alternate water supply treatment system permanent location.
- Installing a slide gate on the alternate water supply intake.

2.4 Objectives

The primary objectives of the proposed Project are as follows:

- The CSD’s primary objective is to improve existing drinking water infrastructure for three neighboring subdivisions/Districts, Big Oak Flat, Groveland, and Pine Mountain Lake.
- The CSD seeks to ensure adequate potable water supply to residents during drought conditions.
- The CSD seeks to construct and operate the proposed groundwater wells, water storage tanks, and distribution pipelines with the most cost-effective methods available that meet the District’s objectives and regulatory compliance requirements.

2.5 Other Required Approvals

The proposed Project will include, but not be limited to, the following regulatory requirements:

- The adoption of a Mitigated Negative Declaration by the Groveland Community Services District
- Tuolumne County Air Pollution Control District (permit to construct)

Figure 1 – Regional Location Map

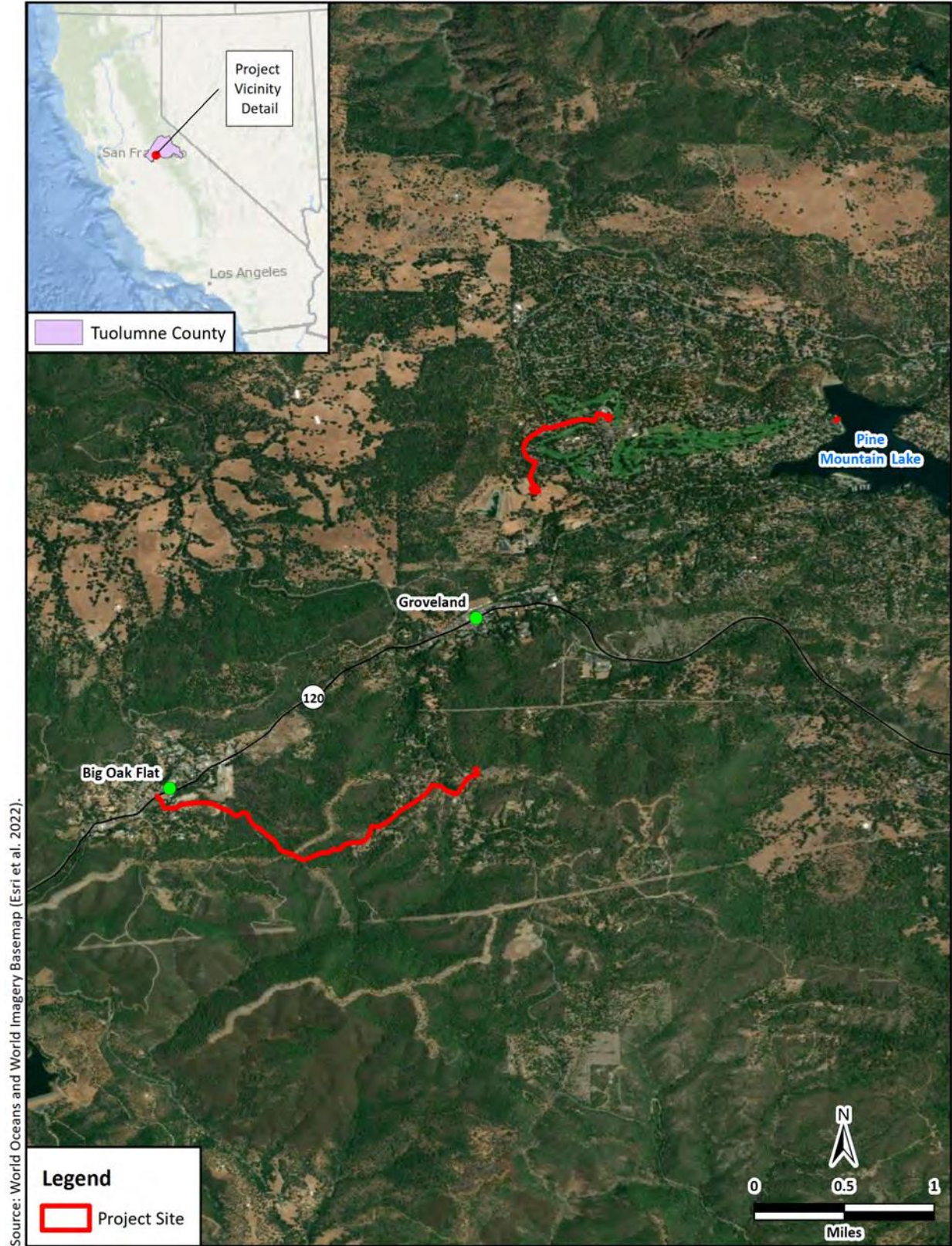


Figure 2 – Groundwater Well and Water Storage Tank Site Map



Figure 3 – Water Distribution Pipeline Site Map

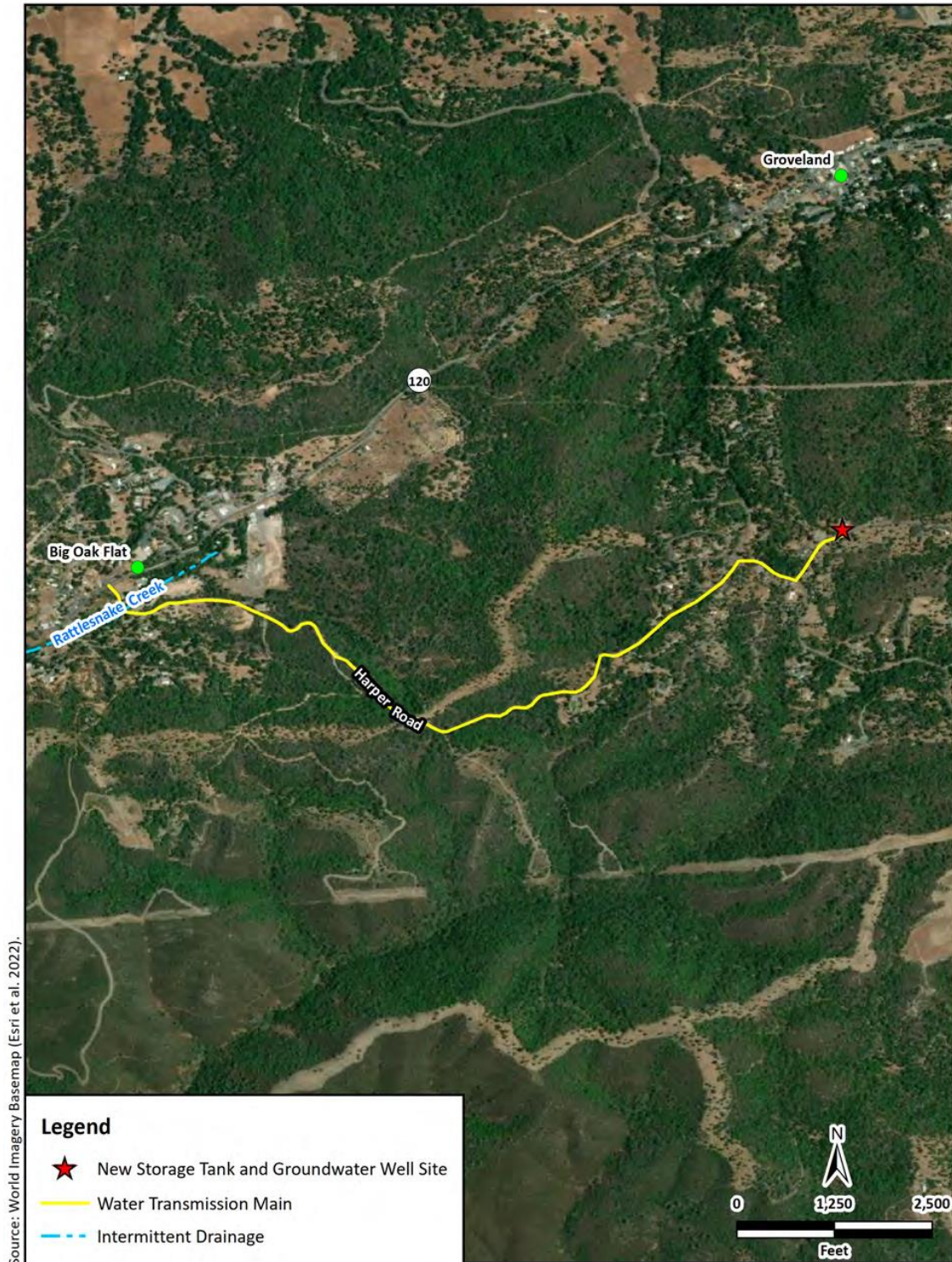


Figure 4 – Alternate Water Supply Treatment and Groundwater Well Site Map



Figure 5 – Alternative Water Supply Intake Site Map



Chapter 3

IMPACT ANALYSIS

Initial Study Checklist

3.1 Environmental Checklist Form

Project title:

Groveland Drought Improvements Project

Lead agency name and address:

Groveland Community Services District
18966 Ferretti Road
Groveland, CA 95321

Contact person and phone number:

Peter Kampa, General Manager: (209) 962-7161, ext. 1024
Alfonso Manrique, PE: (559) 473-1371

Project location:

See Section 2.1

Project sponsor's name/address:

Groveland Community Services District

General plan designation:

Various, Project across multiple areas

Zoning:

Various, Project across multiple areas

Description of project:

See Section 2.3

Surrounding land uses/setting:

See Section 2.2

Other public agencies whose approval or consultation is required (e.g., permits, financing approval, participation agreements):

See Section 2.6

California Native American Tribal 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? If so, has consultation begun or is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

In accordance with Assembly Bill (AB) 52, potentially affected Tribes were formally notified of this Project and were given the opportunity to request consultation on the Project. The Native American Heritage Commission was contacted, requesting a contact list of applicable Native American Tribes, which was provided. Letters were provided to the listed Tribes, notifying them of the Project and requesting consultation, if desired. No further consultation was requested. See Section XVIII – Tribal Cultural Resources for more information.

3.2 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture Resources and Forest Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Energy |
| <input type="checkbox"/> Geology / Soils | <input type="checkbox"/> Greenhouse Gas Emissions | <input type="checkbox"/> Hazards & Hazardous Materials |
| <input type="checkbox"/> Hydrology / Water Quality | <input type="checkbox"/> Land Use / Planning | <input type="checkbox"/> Mineral Resources |
| <input type="checkbox"/> Noise | <input type="checkbox"/> Population / Housing | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation | <input type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities / Service Systems | <input type="checkbox"/> Wildfire | <input type="checkbox"/> Mandatory Findings of Significance |

3.3 Determination

Based on this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable

legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.



I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



February 10, 2023

(Travis Crawford, Environmental Consultant) for

Date

Peter Kampa

General Manager

Groveland Community Services District

I. AESTHETICS

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

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES

- 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?

Less Than Significant Impact. A scenic vista is defined as a viewpoint that provides expansive views of highly valued landscape for the benefit of the general public. The Sierra Nevada Mountains are the main natural and visual resources in the proposed Project area. Distant views of the Sierra Nevada Mountains would largely be unaffected by the development of the Project because of the nature of the Project, distance and limited visibility of these features. The proposed Project involves construction and operation of two new groundwater wells, a water storage tank and water distribution

pipelines, a water supply treatment system, and a slide gate on the alternate water supply intake across the communities of Big Oak Flat, Groveland, and Pine Mountain Lake in Tuolumne County.

Construction of groundwater wells, water storage tanks, water distribution pipelines, and alternate water treatment systems will be similar to existing facilities and will not introduce features that are atypical of a built environment in the area. Many of the proposed improvements will be installed at ground level and views of surrounding areas will not be substantially impacted by the Project. As such, the proposed Project will not substantially impede any scenic vistas.

Construction activities will occur over a two year period and will be visible from the adjacent residences, businesses, and roadsides; however, the construction activities will be temporary in nature and will not affect a scenic vista, as described above.

There are no state designated scenic highways within the vicinity of the proposed Project site.¹ California Department of Transportation Scenic Highway Mapping System identifies portions of State Routes 49 and 108 in Tuolumne County (north and west of the Project site) as being eligible for state scenic highway designation, but they are not officially designated. The proposed Project would not damage any trees, rock outcroppings or historic buildings within a State scenic highway corridor. Therefore, there is a *less than significant impact*.

Mitigation Measures: None are required.

- 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 publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and regulations governing scenic quality?

Less Than Significant Impact. The proposed Project would result in minor alterations to the existing visual character of public views of the site. The groundwater wells will be small above-ground structure surrounded by fencing. The wells will not be visually imposing or at a height that impedes visibility from surrounding areas. The water distribution pipelines will not be visible (once installed) as they will be below grade and the land will be restored to pre-Project conditions following construction.

¹ California State Scenic Highway Map, California Department of Transportation. <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>. Accessed January 2023.

The water storage tank will be installed at an existing storage tank site at 18790 Vernal Drive. The storage tank will be visible to travelers along Vernal Drive. However, the storage tank will be painted a neutral color and will use non-reflective surfaces to minimize visual impact. For the Project as a whole, most of the improvements will not be visible outside of the immediate Project areas and the improvements will have similar aesthetic features to other urban structures and developments in the areas. Because these improvements are not visually imposing and do not represent atypical development in the Big Oak Flat, Groveland, Pine Mountain Lake and the surrounding areas, the visual character and quality of views in the area will not be significantly impacted.

Construction activities will be seen by the residences and businesses within the immediate vicinity and by vehicles driving in the District; however, construction activities will be temporary.

As such, the proposed Project will not substantially degrade the existing visual character or quality of the area or its surroundings.

The impact will be *less than significant*.

Mitigation Measures: None are required.

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

Less Than Significant Impact. Currently the sources of light in the Project areas are from building lights, the vehicles traveling along surrounding roads, and some security lighting at nearby businesses and some residences. No lighting will be associated with pipeline installation. Some security lighting may be installed at the proposed new water well and water storage tank locations. However, any additional lighting would not be expected to appreciably change any existing glare or lighting conditions because the visibility of the site from residential areas and public spaces and roadways is limited. This lighting will be directed downward and will not result in light “spillage” onto adjacent properties. Accordingly, the proposed Project would not create substantial new sources of light or glare. Accordingly, there is a *less than significant impact*.

Mitigation Measures: None are required.

II. AGRICULTURE AND FOREST RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RESPONSES

- 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?

No Impact. The Farmland Mapping and Monitoring Program has not mapped farmland in Tuolumne County and as such, the Project does not include conversion of designated farmland to non-farmland. The proposed Project involves construction and operation of groundwater wells, water storage tanks and water distribution pipelines, relocating the alternate water supply water treatment system, and improving the alternate water supply intake.

The groundwater wells and water storage tanks will be constructed on previously disturbed land with similar uses. The disturbance areas of the Project components are considered Urban and Built-Up Land or Grazing Land by the State Farmland Mapping and Monitoring Program.² The Project will not change any land uses. The proposed Project does not have the potential to result in the conversion of farmland to non-agricultural uses or forestland uses to non-forestland. There are no agricultural lands in the District under a Williamson Act Contract. The proposed Project does not include lands under a Williamson Act Contract. No conversion of forestland, as defined under Public Resource Code or General Code, as referenced above, would occur as a result of the proposed Project. There is *no impact*.

Mitigation Measures: None are required.

² California Important Farmland Finder, California Department of Conservation. <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed January 2023.

III. AIR QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors or adversely affecting a substantial number of people)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES

- 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?

Less Than Significant Impact. The proposed Project involves construction and operation of two new groundwater wells, a water storage tank and water distribution pipelines, a water supply treatment system, and a slide gate on the alternate water supply intake across the Big Oak Flat, Groveland, and Pine Mountain Lake area in Tuolumne County. The Tuolumne County Air Pollution Control District (TCAPCD) is designated nonattainment of state air quality standards for ozone.³ Because of the region’s non-attainment status for ozone, if the project-generated emissions of either of the ozone precursor pollutants (ROG or NO_x) were to exceed the TCAPCD’s significance thresholds of 100 tons per year of

³ Section 4.3 Air Quality. Tuolumne County General Plan Update EIR. <https://www.tuolumnecounty.ca.gov/DocumentCenter/View/5789/43-Air-Quality>, pg 4.3-4

ROG or NOX⁴, then the project uses would be considered to conflict with the attainment plan. In addition, if the project uses were to result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

As discussed below, predicted construction and operational emissions would not exceed the TCAPCD’s significance thresholds for ROG, NO_x, PM₁₀, and PM_{2.5}. As a result, the Project uses would not conflict with emissions inventories contained in regional air quality attainment plans, and would not result in a significant contribution to the region’s air quality non-attainment status. Additionally, the Project would comply with all applicable rules and regulations.

The proposed Project would generate emissions associated with the construction of groundwater wells, water storage tanks, water distribution pipelines, and water treatment plant both from worker vehicle trips and from construction equipment. Construction emissions would be considered short-term and temporary emissions because construction emissions would cease following completion of installation. Operational emissions would occur from the new groundwater wells and various pumps used to get water to the storage tank. Operational emissions would occur during each employee vehicle trips associated with operation and maintenance of the wells, pumps, and treatment system.

The nonattainment pollutant for the TCAPCD is ozone. Therefore, the pollutants of concern for this impact are ozone precursors. Ozone is a regional pollutant formed by chemical reaction in the atmosphere, and the Project’s incremental increase in ozone precursor generation is used to determine the potential air quality impacts.

The annual significance thresholds to be used for the Project emissions are as follows⁵:

- Reactive Organic Gases (ROG) – 1,000 lbs/day or 100 tons per year
- Oxides of Nitrogen (NO_x) – 1,000 lbs/day or 100 tons per year
- Particulate Matter (PM₁₀) – 1,000 lbs/day or 100 tons per year
- Carbon Monoxide (CO) – 1,000 lbs/day or 100 tons per year

The estimated annual construction and operational emissions are provided below. The California Emissions Estimator (CalEEMod) version 2020.4.0 was used to estimate the construction and operational emissions of the proposed Project components, excluding water distribution pipelines. The Sacramento

⁴ Tuolumne County Air Pollution Control District. CEQA Thresholds of Significance.

https://www.tuolumnecounty.ca.gov/DocumentCenter/View/1072/TCAPCD_Significance_Thresholds_2.

⁵ Tuolumne County Air Pollution Control District. CEQA Thresholds of Significance.

https://www.tuolumnecounty.ca.gov/DocumentCenter/View/1072/TCAPCD_Significance_Thresholds_2.

Metropolitan Air Quality Management District’s Road Construction Emissions Model version 9.0.0 was utilized to estimate emissions from the construction of water distribution pipelines. A conservative approach was utilized when modeling emissions. It was assumed that construction activities would take place across the entirety of the Project footprints. Modeling results are provided in Table 1 with the complete CalEEMod report and Road Construction Emissions Model output files provided in Appendix A.

**Table 1
Proposed Project Emissions Estimate**

Pollutant/ Precursor	Construction Emissions maximum (excluding pipeline) (tons/yr)	Construction Emissions total (for distribution pipeline only) (lbs/day)	Operational Emissions total (tons/yr)	Threshold (tons/yr) / (lbs/day)	Threshold Exceeded?
CO	1.54	1.2	2.93	100 / 1000	N
NOx	1.43	0.1	0.52	100 / 1000	N
ROG	0.94	0.12	0.77	100 / 1000	N
PM₁₀	0.12	10.05	0.4	100 / 1000	N

As demonstrated in Table 1, estimated construction and operational emissions would not exceed the TCAPCD’s significance thresholds for CO, NOx, ROG, and PM₁₀. As a result, the Project uses would not conflict with emissions inventories contained in regional air quality attainment plans and would not result in a significant contribution to the region’s air quality non-attainment status. The proposed Project will comply with all applicable air quality plans. Therefore, no violations of air quality standards will occur and no net increase of pollutants will occur.

Any impacts would be considered *less than significant*.

Mitigation Measures: None are required.

- e. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?)

Less Than Significant Impact. During construction, the various diesel-powered vehicles and equipment in use on-site could create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the Project site. In addition, once the proposed Project is

operational, there would be no source of odors from the Project. Therefore, the impact is *less than significant*.

Mitigation Measures: None are required.

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IV. BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RESPONSES

- a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
- b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact With Mitigation. A Biological Resource Evaluation (BRE) for the Groveland Drought Improvements Project was prepared by Colibri Ecological Consulting LLC in January 2023 for the proposed Project (See Appendix B). The results of the BRE are summarized herein.

Environmental Setting

The Project is in and adjacent to the communities of Big Oak Flat, Groveland, and Pine Mountain Lake in Tuolumne County. The Project site consists of developed and disturbed land cover surrounded by oak and pine forest. Land uses include commercial, residential, and recreational.

The existing alternate water supply treatment facility is in a paved parking lot surrounded by commercial development. The new alternate water supply treatment and groundwater well site consists of a graveled

parking lot and disturbed oak forest. An ephemeral drainage was along the north and east boundaries of the new alternate water supply treatment and groundwater well site. The new water storage tank and groundwater well site was a flat, graveled area adjacent to a communication tower surrounded by oak and pine forest. The alternate water supply intake was adjacent to a paved parking lot, a maintained lawn, and a reservoir. The proposed pipelines are underneath paved roads surrounded by oak and pine forest. The pipelines cross several unnamed ephemeral drainages and Rattlesnake Creek, an intermittent drainage with herbaceous riparian vegetation (Figures 11–17 of Appendix B).

Effects Determination

As part of the BRE Reconnaissance Survey, a total of 53 plant species (36 native and 17 nonnative), 36 bird species, and two mammal species were observed during the survey (Table 2 of Appendix B). The BRE concludes that the Project may affect but is not likely to adversely affect the state listed as endangered and fully protected bald eagle, the state species of special concern northwestern pond turtle, and the state species of special concern western red bat. The Project is not expected to affect any other special-status species due to the lack of habitat or known occurrence records for those species near the Project site.

The Project could adversely affect, either directly or through habitat modifications, three special-status animals that occur or may occur on or near the Project site. Construction activities such as excavating, trenching, or using other heavy equipment that disturbs or harms a special-status species or substantially modifies its habitat could constitute a significant impact. Therefore, Mitigation Measures BIO-1 – BIO-3 will be included in the conditions of approval to reduce the potential impact to a *less than significant* level.

Mitigation Measures:

BIO-1: Protect Northwestern Pond Turtle.

1. A pre-construction clearance survey shall be conducted by a qualified biologist to ensure that northwestern pond turtle will not be impacted during Project construction. The pre-construction clearance survey shall be conducted no more than 14 days prior to the start of construction activities within 300 feet of potential aquatic habitat (Rattlesnake Creek and adjacent pond) for northwestern pond turtle. During this survey, the qualified biologist shall search all aquatic habitat for turtles and all potential nesting habitat on the Project site for active turtle nests. If a turtle is found, it will be allowed to leave the area on its own. If an active turtle nest is found, the qualified biologist shall determine the extent of a construction-

free buffer to be established and maintained around the nest for the duration of the nesting cycle. The biologist shall then work with construction personnel to install wildlife exclusion fencing along the buffer. This fencing should be a minimum of 36 inches tall and toed-in 6 inches below ground prior to construction activities. If fencing cannot be toed-in, the bottom of the fence will be weighted down with a continuous line of long, narrow sand bags or similar, to ensure there are no gaps under the fencing where wildlife could enter. One-way exit funnels directed away from construction activities will be installed to allow turtles and other small wildlife to exit the fenced enclosure.

BIO-2: Protect Nesting Bald Eagle.

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through July.
2. If it is not possible to schedule construction between August and January, preconstruction surveys for nesting bald eagles shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates (large trees) within 0.5 miles of the impact areas at Pine Mountain Lake for nests. If an active nest is found close enough to the construction area to be disturbed by Project activities, the qualified biologist in consultation with the CDFW shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting eagles, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

BIO-3: Protect Western Red Bat.

1. To the extent practicable, construction shall be scheduled to avoid the birthing and pupping season for western red bat, which extends from May through August.
2. If it is not possible to schedule construction between September and April, preconstruction surveys for roosting bats shall be conducted by a qualified biologist to ensure that no active maternal colonies will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential colony substrates in and immediately adjacent to the impact areas for maternity roosts. If an active maternity roost is found close enough to the construction area to be disturbed by work activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the colony. If work cannot proceed without disturbing the colony, work

may need to be halted or redirected to other areas until young are able to fly or the colony has otherwise failed for non-construction related reasons.

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

Less Than Significant Impact. As part of the BRE, a field reconnaissance survey of the Project site and a 50-foot buffer surrounding the site were walked and thoroughly inspected to evaluate and document the potential for the area to support state- or federally protected resources. The Project site was within 50 feet of several unnamed ephemeral streams and Rattlesnake Creek, an intermittent stream (Figures 3 and 4). As streams in California, they are under the regulatory jurisdiction of the CDFW; as potential surface waters in California, they may be under the regulatory jurisdiction of the SWRCB; and as a potential tributary of the Tuolumne River, a navigable water of the United States, they may be under the regulatory jurisdiction of the USACE. According to the National Wild and Scenic Rivers System, the nearest designated wild and scenic river is the Tuolumne River approximately 2.7 miles north of the Project site (USFWS 2022c).

No marine or estuarine fishery resources or migratory routes to and from anadromous fish spawning grounds were present in the survey area. The streams in the survey area do not contain the perennial or prolonged flows necessary to support fish. In addition, no EFH, defined by the Magnuson-Stevens Act as those resources necessary for fish spawning, breeding, feeding, or growth to maturity, were present in the survey area.

The proposed Project may affect and is likely to adversely affect several regulated habitats. These habitats consist of Rattlesnake Creek, an intermittent stream, and several unnamed ephemeral streams that may be under the regulatory jurisdiction of the USACE, the RWQCB, and the CDFW. As such, Clean Water Act Section 404 permits and 401 certifications as well as California Fish and Game Code Section 1602 notifications may be required if Project activities impact these regulated habitats. However, the project will have **no effect** on state or federally protected wetlands or other regulated habitats under CEQA purview as no such habitats were found in the survey area.

Therefore, there is a *less than significant impact*.

Mitigation Measures: None are required.

- d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant with Mitigation. The Project has the potential to impede the use of nursery sites for native birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. Migratory birds are expected to nest on and near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort is considered take by the CDFW. Loss of fertile eggs or nesting birds, or any activities resulting in nest abandonment, could constitute a significant impact if the species is particularly rare in the region. Construction activities such as excavation, trenching, water main or water valve installation, and mobilizing or demobilizing construction equipment that disturb a nesting bird on the site or immediately adjacent to the construction zone could constitute a significant impact.

Therefore, Mitigation Measure BIO-4 will be included in the conditions of approval to reduce the potential impact to a *less than significant* level.

BIO-4: Protect Nesting Birds.

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.
2. If it is not possible to schedule construction between September and January, preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

- 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?

No Impact. The proposed Project, which will result in temporary impacts to developed and disturbed land, will not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance as no trees or biologically sensitive areas will be impacted. The proposed Project will not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan as no such plan has been adopted. As such, there is *no impact*.

Mitigation Measures: None are required.

V. CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

RESPONSES

- a. Cause a substantial adverse change in the significance of a historical resource pursuant to §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 formal cemeteries?

Less Than Significant Impact With Mitigation. A Phase I Cultural Survey and Report (Cultural Report) was prepared by ASM Affiliates, Inc. (ASM) for the proposed Project in February 2023 (See Appendix C).

The Report included: (1) a records search at the Central California Information Center (CCIC), California State University, Stanislaus to identify previously recorded cultural resources and prior studies in the APE and surrounding 0.5-mile radius of the APE; (2) a search of the Native American Heritage Commission’s (NAHC) Sacred Lands File for known sacred resources and request for contact information for individuals and tribal representatives who may have information about the Project; (3) desktop archival research; (4) an archaeological and built environment pedestrian survey of the APE; (5) an National Register of Historic Places (NRHP) and California Register of Historical

Resources (CRHR) eligibility evaluation of a historical archaeological site; and (6) a buried site sensitivity assessment.

Summary of findings:

Records Search Results

A records search of site files and maps was conducted by the Central California Information Center (CCIC), California State University, Stanislaus on November 28, 2022, for the Project study area. Results provided by the CCIC note a total of 8 previous projects that have been completed within the study area, and a total of 3 previously recorded sites have been documented. The record search also indicated that an additional 40 studies have been completed with a 0.5-mi radius of the study area with an additional 96 resources located within that same radius.

Native American Consultation

A search of the NAHC *Sacred Lands File* was completed on December 12, 2022. Based on the NAHC records, no sacred sites or traditional cultural places had been identified within or adjacent to the study area. Outreach letters were sent to tribal organizations on the NAHC contact list on January 10th, 2023. No responses have been received as of the writing of this report.

Field Methodology

Interior's Standards and Guidelines. ASM completed an intensive, on-foot examination of the ground surface by walking parallel 15-m transects, looking for evidence of archaeological sites in the form of artifacts, surface features (such as house pits), and archaeological indicators (e.g., anthropogenic soils or burnt animal bone). The identification and location of any new or previously discovered sites; tabulation and recording of surface diagnostic artifacts; site photography and sketch mapping; preliminary evaluation of site integrity; and site recording or, in the case of previously recorded sites, site record updating followed the California OHP Instructions for Recording Historic Resources and Department of Parks and Recreation (DPR) 523 forms for site recording. GPS data was collected with an Apple iPad mini using the ArcGIS Field Maps app paired with an Arrow 100 receiver unit capable of sub-foot accuracy.

Description of Findings

One new archaeological site, temporary field designation GROVE-SITE-1, a historic refuse scatter consisting of 60 tin cans, was identified and recorded during the current study. Additionally, portions of three previously recorded resources (P-55-005093, P-55-006492, and P-55-007318) located within the study area were investigated during the current study. Of the three previously recorded resources, P-55-006492 and P-55-007318 are historic mining related sites, while the remaining resource, P-55-005093, is California Registered Historical Landmark #406.

Site P-55-005093 is a monument for California Registered Historical Landmark #406. It is located outside of the study area and will be avoided by the proposed Project. Additionally no recorded features for site P-55-006492 are located within the study area. As the proposed Project will follow the paved Harper Road in the vicinity of the recorded site, the site will not be impacted by the Project.

Site P-55-007318 consists of a historic mining site located immediately adjacent to Harper Road along the proposed new water distribution line. An evaluation for eligibility to the CRHR was outside of the scope of this study; however, since the proposed Project will follow the paved Harper Road through the site there will be no impact to the site as a result of the project.

Site GROVE-SITE-1 is a small historic refuse deposit. While it does meet the age requirements for eligibility to the CRHR, it shows no association with important events or persons (Criterion 1 and 2); does not embody characteristics of a type, period, region, or method of construction, or represent the work of an important person (Criterion 3); and consists of mass-produced items thereby precluding the ability to yield important information in history (Criterion 4). For those reasons, site GROVE-SITE-1 is recommended as not eligible for inclusion in the CRHR.

The proposed Project does not have the potential to result in adverse impacts to unique or significant historical resources. A determination of no significant impacts for cultural resources is therefore recommended.

Although unlikely given the recent Phase I cultural resources survey, the highly disturbed nature of the sites and the records search did not indicate the presence of such resources, subsurface construction activities associated with the proposed Project could potentially disturb previously undiscovered human burial sites. Accordingly, this is a potentially significant impact. The California Health and Safety Code Section 7050.5 states that if human remains are discovered on-site, no further disturbance shall occur until the Tuolumne County Coroner has made a determination of origin and disposition. If the Coroner determines that the remains are not subject to his or her authority and if the Coroner recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the NAHC. The NAHC shall identify the person or persons it believes to be the “most likely descendant”

(MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resource Code Section 5097.98.

No other cultural resources were identified within the APE as a result of this study. Therefore, it is unlikely that the proposed action will have an effect on important archaeological, historical, or other cultural resources. No further cultural resources investigation is therefore recommended. In the unlikely event that buried archaeological deposits are encountered within the project area, the finds must be evaluated by a qualified archaeologist. Unidentified cultural resources could be uncovered during proposed Project construction which could result in a potentially significant impact; however, implementation of Mitigation Measure CUL-1 would ensure that significant impacts remain *less than significant with mitigation incorporation*.

Mitigation Measures:

CUL-1: In the event that archaeological remains are encountered at any time during development or ground-moving activities within the entire Project area, all work in the vicinity of the find should be halted until a qualified archaeologist can assess the discovery and take appropriate actions as necessary.

VI. ENERGY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES

- 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?

Less Than Significant Impact. The proposed Project involves construction and operation of two new groundwater wells, a water storage tank and water distribution pipelines, a water supply treatment system, and a slide gate on the alternate water supply intake.

During construction, the Project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass. Title 24 Building Energy Efficiency Standards would provide guidance on construction techniques for the plant house to maximize energy conservation and it is expected that contractors and the District have a strong financial incentive to use recycled materials and products originating from nearby sources in order to reduce materials costs. As such, it is anticipated that materials used in construction and construction vehicle fuel energy would not involve the wasteful, inefficient, or unnecessary consumption of energy.

Operational Project energy consumption would be minimal, as the main source of energy use would be for the new lighting associated with the Project. Energy efficient lighting systems would be installed and

would not represent a wasteful and inefficient use of energy. Operational energy would also be consumed during each vehicle trip associated with the proposed use for maintenance or otherwise.

As discussed in Impact XVII – Transportation/Traffic, the proposed Project would not generate on-going daily vehicle trips. Vehicle trips would occur sporadically for maintenance and inspection. The length of these trips and the individual vehicle fuel efficiencies are not known; therefore, the resulting energy consumption cannot be accurately calculated. Adopted federal vehicle fuel standards have continually improved since their original adoption in 1975 and assists in avoiding the inefficient, wasteful, and unnecessary use of energy by vehicles.

As discussed previously, the proposed Project would be required to implement and be consistent with existing energy design standards at the local and state level, such as Title 24. The Project would also be subject to energy conservation requirements in the California Energy Code and CALGreen. Adherence to state code requirements would ensure that the Project would not result in wasteful and inefficient use of non-renewable resources due to building operation.

Therefore, any impacts are *less than significant*.

Mitigation Measures: None are required.

VII. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

VII. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES

a-i. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving 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.

Less Than Significant Impact. The proposed Project site is not located within a designated Alquist-Priolo Earthquake Fault zone or a seismically active zone.⁶; thus, the risk of surface fault ruptures within the area is low. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

a (ii-iv). Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking, liquefaction or landslides?

⁶ California Department of Conservation. California Geological Survey. CGS Information Warehouse: Regulatory Maps. <https://maps.conservation.ca.gov/cgs/informationwarehouse/>. Accessed January 2023.

Less Than Significant Impact. The proposed Project site is not in an area recognized for severe seismic ground shaking, landslides or liquefaction.⁷ Additionally, the project does not include the construction of substantial structures that would expose people or structures to adverse effects involving rupture of a known earthquake fault. Impacts would be *less than significant*.

Mitigation Measures: None are required.

b. Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Construction activities associated with the Project involves excavation of soil for new groundwater wells, water storage tank, pipelines, water treatment system, slide gate, and installation of related components. These activities could expose barren soils to sources of wind or water, resulting in the potential for erosion and sedimentation on and off the Project site. During construction, nuisance flow caused by minor rain could flow off-site. The District and/or contractor would be required to employ appropriate sediment and erosion control BMPs as part of a Stormwater Pollution Prevention Plan (SWPPP) that would be required in the California National Pollution Discharge Elimination System (NPDES). In addition, soil erosion and loss of topsoil would be minimized through implementation of the Air District’s fugitive dust control measures. Once construction is complete, the Project would not result in soil erosion or loss of topsoil. Therefore, the impact is *less than significant*.

Mitigation Measures: None are required.

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 most recently adopted Uniform Building Code creating substantial risks to life or property?

Less Than Significant Impact. As described in Impact VI (aii-aiv), the potential for landslides, liquefaction, settlement or other seismically related hazards in the proposed Project area is low. Therefore, the potential for liquefaction induced lateral spreading is also low. Causes of soil instability include, but are not limited to, withdrawal of groundwater, pumping of oil and gas from underground,

⁷ Ibid.

liquefaction, and hydro-compaction.⁸ The proposed Project does not include the on-site withdrawal of groundwater and the project site is not located in an area that has been subjected to activities that might cause soil instability. Because the project site has not been subject to activities that may cause soil instability, the risk of subsidence or collapse is expected to be low. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

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?

No Impact. The proposed Project involves improvements to drinking water supply and storage for the Groveland area. The proposed Project will not require installation of a septic tank or alternate wastewater disposal system. Therefore, there would be *no impact*.

Mitigation Measures: None are required.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. Paleontological resources are the fossilized remains of plants and animals and associated deposits. The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources.

CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) §15126.4 (a)(1)). California Public Resources Code §5097.5 (see above) also applies to paleontological resources.

There are no unique geological features or known fossil-bearing sediments in the vicinity of the proposed Project site. However, there remains the possibility for previously unknown, buried paleontological

⁸ USGS. California Water Science Center. Land Subsidence: Cause & Effect. <https://www.usgs.gov/centers/land-subsidence-in-california/science/cause-and-effect>. Accessed January 2023.

resources or unique geological sites to be uncovered during subsurface construction activities. Implementation of Mitigation Measure CUL-1 would require inadvertently discovery practices to be implemented should previously undiscovered paleontological resources be located. As such, impacts to undiscovered paleontological resources would be *less than significant*.

VIII. GREENHOUSE GAS EMISSIONS

Would the project:

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The proposed Project would generate exhaust-related GHG emissions during construction resulting from construction equipment operation, material haul and delivery trucks, and by trips by construction worker vehicles. Construction-related GHG emissions would occur for approximately two years and would cease following completion of the Project.

The proposed Project is not a significant land-use development project that would generate significant vehicle trips and is not a roadway capacity increasing project that could carry additional VMT. Therefore, the proposed Project would not result in a net increase in operational GHG emissions. As such, the proposed Project would not interfere or obstruct implementation of an applicable GHG emissions reduction plan. The proposed Project would be consistent with all applicable local plans, policies, and regulations for reducing GHG emissions. Any impacts related to GHG emissions would be *less than significant*.

Mitigation Measures: None are required.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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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?

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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RESPONSES

- 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?

Less Than Significant Impact. While grading and construction activities may involve the limited transport, storage, use or disposal of hazardous materials, such as the fueling/servicing of construction equipment onsite, the activities would be short-term or one-time in nature and would be subject to federal, state, and local health and safety regulations.

Long-term operation of the proposed Project would not involve transport, storage, use or disposal of hazardous materials other than for maintenance of the facilities during operation. Water treatment chemicals may be utilized at the proposed new water supply treatment system. With implementation of the proposed Project, there are no reasonably foreseeable upset and accident conditions that would create a significant hazard to the public due to the release of hazardous materials. Impacts are considered *less than significant*.

Mitigation Measures: None are required.

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

Less Than Significant Impact. The nearest school to the proposed Project area is Tenaya Elementary School, located off Main Street within the CSD. Once operational, the groundwater wells, water storage tanks, water treatment systems, and pipelines will be sealed and would involve little or no hazardous materials. Due to intervening distance and lack of hazardous materials associated with the Project, there is a *less than significant impact*.

Mitigation Measures: None are required.

- d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. A database search was conducted to identify recorded hazardous materials incidents in the proposed Project area. The search included recorded incidents on the National Priorities List (NPL), State Priority List (SPL), the Superfund Comprehensive Environmental Response Compensation and Liability Information System List (CERLIS), the EPA’s emergency response notification system list (ERNS), and other federal, state, and local agency databases. The proposed Project sites are not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (EnviroStor⁹ and GeoTracker¹⁰ databases). As such, there is *no impact*.

Mitigation Measures: None are required.

- 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?

Less Than Significant Impact. The closest airport to the water intake site adjacent to Pine Mountain Lake at Dunn Court is the Pine Mountain Lake Airport, located approximately 1.3 miles east of the Project site. There are no land uses associated with the proposed Project that would impact any airport operations. Therefore, the Project has a *less than significant impact* on any airport land use plans or airport noise.

⁹ California Department of Toxic Substance Control. EnviroStor. <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=groveland+CA> Accessed January 2023.

¹⁰ California State Water Resources Control Board. GeoTracker. <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=groveland+ca>. Accessed January 2023.

Mitigation Measures: None are required.

- f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The proposed Project consists of construction and operation of two new groundwater wells, a 140,000-gallon storage tank, 5500 linear feet of 8-inch water distribution pipeline, a water supply treatment system along with an interconnection pipeline between the new and existing locations, and a slide gate on the alternate water supply intake. Project construction will be temporary in nature and would not require any road closures nor would they interfere with any adopted emergency response or evaluation plan. Construction schedules pertaining to pipelines within roadways will be coordinated with police/fire/emergency services. Adequate emergency access will be maintained at all times. As such, any impacts will be *less than significant*.

Mitigation Measures: None are required.

- g. Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact. Implementation of the Project would not change the degree of exposure to wildfires because no new housing or businesses will be constructed. Therefore, there is a *less than significant impact*.

Mitigation Measures: None are required.

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i. Result in substantial erosion or siltation on- or off- site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RESPONSES

- a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. The proposed Project consists of construction and operation of two new groundwater wells, a 140,000-gallon storage tank, 5500 linear feet of 8-inch water distribution pipeline, a water supply treatment system along with an interconnection pipeline between the new and existing locations, and a slide gate on the alternate water supply intake.

Construction

Excavation, removal of vegetation cover, and soil-impacting activities associated with construction of the Project could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

Three general sources of potential short-term construction-related stormwater pollution associated with the proposed Project are: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion and transportation, via storm runoff or mechanical equipment. Generally, routine safety precautions for handling and storing construction materials may effectively mitigate the potential pollution of stormwater by these materials. These same types of

common sense, “good housekeeping” procedures can be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes.

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are also common sources of stormwater pollution and soil contamination. In addition, grading activities can greatly increase erosion processes. Two general strategies are recommended to prevent construction silt from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed. Secondly, the area should be secured to control offsite migration of pollutants. These best management practices (BMPs) would be required in the Storm Water Pollution Prevention Plan (SWPPP) to be prepared prior to commencement of Project construction activities. When properly designed and implemented, these “good-housekeeping” practices are expected to reduce short-term construction-related impacts to less than significant.

In accordance with the National Pollutant Discharge Elimination System (NPDES) Stormwater Program, the Project will be required to comply with existing regulatory requirements to prepare a Storm Water Pollution Prevention Plan (SWPPP) designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the RWQCB has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The specific controls are subject to the review and approval by the RWQCB and are an existing regulatory requirement. Preparation of a SWPPP is a regulatory requirement of the Project and thus is not listed as a mitigation measure. Compliance with the NPDES and SWPPP would ensure that the proposed Project would have a less than significant impact relative to this topic.

Operation

The Groveland CSD is proposing a drinking water infrastructure improvement project. The purpose of the Project is to ensure an adequate water supply during drought conditions. The water will be treated in compliance with the California State Regional Water Quality Control Board standards. There are no water discharge activities associated with the Project, once constructed. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

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

Less Than Significant Impact. The purpose of the proposed Project is to ensure an adequate water supply to the communities of Big Oak Flat, Groveland, and Pine Mountain Lake during drought conditions. The Groveland CSD will pursue funding for the Project from the Urban Drought Relief Grant

Program. The Urban Drought Relief Grant Program, administered by the California Department of Water Resources, is a state program that offers low-cost financing for a wide variety of drought relief and water quality projects. The proposed Project is needed to alleviate existing and potential future water supply issues for the CSD. The proposed Project would not substantially deplete groundwater resources such that a significant environmental impact would occur. Therefore, the impact is *less than significant*.

Mitigation Measures: None are required.

- 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 offsite;
 - ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - iii. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
 - iv. impede or redirect flood flows?

Less Than Significant Impact. The proposed Project consists of construction and operation of two new groundwater wells, a 140,000-gallon storage tank, 5500 linear feet of 8-inch water distribution pipeline, a water supply treatment system along with an interconnection pipeline between the new and existing locations, and a slide gate on the alternate water supply intake. Construction of the new water wells, water storage tank, and water supply treatment system will result in the introduction of new impervious surfaces. However, given the highly disturbed nature of the Project areas, the improvements are not anticipated to significantly alter the drainage pattern of the site. The proposed pipeline will not introduce new non-permeable surfaces. Once constructed, the pipeline will be underground and the surface area will be restored to pre-Project conditions. During construction, the CSD would be required to obtain a Stormwater Pollution Prevention Plan to minimize erosion and potential site runoff. During construction, the District or construction contractor would be required to obtain a Stormwater Pollution Prevention Plan to minimize erosion and potential site runoff. A copy of the SWPPP is retained on-site during construction. All other on-site drainage will be collected and deposited in the District’s storm drain system. As such, any impacts resulting from drainage patterns would be *less than significant*.

Mitigation Measures: None are required.

- 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?

No Impact. The Project site is not in a flood plain (FEMA 2022). The nearest flood plain limit is Priest Reservoir approximately 1.4 miles southwest of the Project site. In addition, the Project does not include any housing or structures that would be subject to flooding either from a watercourse or from dam inundation. There are no bodies of water near the site that would create a potential risk of hazards from seiche, tsunami or mudflow. The Project will not conflict with any water quality control plans or sustainable groundwater management plan. Therefore, there are *no impacts*.

Mitigation Measures: None are required.

XI. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RESPONSES

- 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?

No Impact. The purpose of the proposed Project is to upgrade the existing water infrastructure and ensure an adequate water supply during drought conditions. The proposed Project will take place in the communities of Big Oak Flat, Groveland, and Pine Mountain Lake in western Tuolumne County, and covers multiple land parcels. These communities lie along State Route 120, east of State Route 49 near the Groveland CSD. Construction and operation of the Project itself would not cause any land use changes in the surrounding vicinity nor would it divide an established community. The immediate vicinity of the proposed Project site is comprised of rural undeveloped land uses and existing public utilities. The proposed Project has no characteristics that would physically divide the Groveland CSD. Access to the existing surrounding establishments will remain. *No impacts* would occur as a result of Project implementation.

Mitigation Measures: None are required.

XI. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

REPOSSESSES

- 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?

No Impact. There are no known mineral resources in the proposed Project area.¹¹ Construction will take place within and around the existing streetscape and public utilities land and not in an area with known mineral resources. Therefore, there is *no impact*.

Mitigation Measures: None are required.

¹¹ Mineral Land Classification, California Department of Conservation.

<https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc>. Accessed January 2023.

XII. NOISE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RESPONSES

- 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?

Less Than Significant Impact. The nearest sensitive receptors to the proposed Project would be the rural residences near the water storage tank, and along the water distribution pipelines, as presented in Figures 3 and 4 in Chapter Two. Project construction would involve temporary, short-term noise sources including site preparation and installation of the pipeline and site cleanup work is expected to last for approximately one year. Construction-related short-term, temporary noise levels would be higher than existing ambient noise levels in the Project area, but is temporary and would not occur after construction is completed. The water wells and storage tank will have pumps and motorized equipment. These

mechanisms will be enclosed, which will reduce the noise impact to a less than significant level. However, once operational, the installed equipment will not generate noise significantly above levels that currently exist.

During the proposed Project construction, noise from construction related activities will contribute to the noise environment in the immediate vicinity. Activities involved in construction will generate maximum noise levels, as indicated in Table 2, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

Table 2
Typical Construction Noise Levels

Type of Equipment	dBA at 50 ft	
	Without Feasible Noise Control	With Feasible Noise Control
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time. Most residents recognize this reality and expect to hear construction activities on occasion.

Typical outdoor sources of perceptible ground borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. Construction vibrations can be transient, random, or continuous. Construction associated with the proposed Project is earthmoving activities associated installing pipelines and installing equipment.

The approximate threshold of vibration perception is 65 VdB, while 85 VdB is the vibration acceptable only if there are an infrequent number of events per day.¹² Table 3 describes the typical construction equipment vibration levels.

Table 3
Typical Construction Vibration Levels

Equipment	VdB at 25 ft
Small Bulldozer	58
Jackhammer	79

Vibration from construction activities will be temporary and not exceed the Federal Transit Authority threshold for the nearest sensitive receptors.

As such, any impacts resulting from an increase in noise levels or from groundborne noise levels is *less than significant*.

Mitigation Measures: None are required.

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

No Impact. The Project is not located within an airport land use plan. The closest airport to the water intake site adjacent to Pine Mountain Lake at Dunn Court is the Pine Mountain Lake Airport, located approximately 1.3 miles east of the Project site.

Mitigation Measures: None are required.

¹² Transit Noise & Vibration Impact Assessment. September 2018. Federal Transit Administration, U.S. Department of Transportation. Page 108.

XIV. POPULATION AND HOUSING

Would the project:

- a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RESPONSE

- 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?

No Impact. The proposed Project involves construction and operation of two new groundwater wells, a water storage tank, distribution pipelines, water supply treatment system, and a slide gate on the alternate water supply intake across the communities of Big Oak Flat, Groveland, and Pine Mountain Lake in Tuolumne County. There are no new homes or businesses associated with the proposed Project, nor would Project implementation displace people or housing. Therefore no population will be induced from the Project. There will be *no impact*.

Mitigation Measures: None are required.

XV. PUBLIC SERVICES

Would the project:

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

Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RESPONSES

- a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire Protection?

Police Protection?

Less Than Significant Impact. The purpose of the proposed Project is to upgrade the existing water infrastructure and ensure an adequate water supply during drought conditions. The proposed Project consists of installing a new groundwater well, installing a new water storage tank and distribution line,

relocating the alternate water supply water treatment system, and improving the alternate water supply intake. The proposed Project would not directly or indirectly induce population growth and Tuolumne County Sheriff Station will continue to provide service to Project area. The Groveland Community Services District currently has a cooperative agreement with the California Department of Forestry and Fire Protection (CALFIRE) to provide fire protection services for the community via a Schedule A Agreement. The Groveland Fire Department/CALFIRE and Tuolumne County Fire Department would continue to provide service to the site. As such, there will be *less than significant impacts*.

Schools, Parks, Other Public Facilities?

The proposed Project would not increase the number of residents in the District, as the Project does not include residential units. Because the demand for schools, parks, and other public facilities is driven by population, the proposed Project would not increase demand for those services. As such, the proposed Project would result in *no impacts*.

Mitigation Measures: None are required.

XVI. RECREATION

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RESPONSES

- 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?

No Impact. The proposed Project involves construction and operation of groundwater wells, water storage tank, water supply treatment system, and distributions pipelines. The proposed Project does not include the construction of residential uses and would not directly or indirectly induce population growth. Therefore, the proposed Project would not cause physical deterioration of existing recreational facilities from increased usage or result in the need for new or expanded recreational facilities. The Project would have *no impact* to existing parks.

Mitigation Measures: None are required.

XVII. TRANSPORTATION/ TRAFFIC

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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Would the project:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

RESPONSES

- 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)?
- 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?

Less Than Significant Impact. The proposed Project involves construction and operation of groundwater wells, water storage tank, water supply treatment system, and distributions pipelines. The proposed Project would not cause a substantial increase in traffic, reduce the existing level of service, create any additional congestion at any intersections, or be inconsistent with CEQA Guidelines Section 15064.3. Once constructed, the new wells, storage tank, pipelines, and water treatment system will not generate any substantial additional daily traffic. The Project components would require periodic trips

associated with maintenance and inspection, however, these trips would be sporadic and as such, level of service standards would not be exceeded. In addition, the Project would not modify or impact any existing streets or roadways. Thus, there are no components of the Project that would increase hazards due to a geometric design feature. Construction schedules pertaining to pipelines within roadways will be coordinated with police/fire/emergency services. Adequate emergency access will be maintained at all times. The Project would not conflict with a program plan, ordinance, or policy addressing the circulation system and as such, impacts would be *less than significant*.

Mitigation Measures: None are required.

XVIII. TRIBAL CULTURAL RESOURCES

Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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

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

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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RESPONSES

- a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
- i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
 - ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact. A search of the Native American Heritage Commission *Sacred Lands File* was completed on December 12, 2022. Based on the NAHC records, no sacred sites or traditional cultural places had been identified within or adjacent to the study area. Outreach letters were sent to tribal organizations on the NAHC contact list on January 10th, 2023. No responses have been received as of the writing of this report. Therefore, the impact is *less than significant*.

Mitigation Measures: None are required.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

RESPONSES

- 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?

Less Than Significant Impact with Mitigation. The primary purpose of the proposed Project is to upgrade the water supply infrastructure for the communities of Big Oak Flat, Groveland, and Pine Mountain Lake to ensure an adequate water supply during drought conditions. The Project itself is the construction of two new groundwater wells, a 140,000 gallon water storage tank, water supply treatment system, distribution pipelines, and a slide gate. All environmental impacts resulting from the improvements are discussed within this document. Therefore, there is a *less than significant impact with mitigation*.

Mitigation Measures: The Project will require multiple mitigation measures as identified throughout this document.

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

Less Than Significant Impact. The proposed Project is intended to provide adequate water supplies to the communities of Big Oak Flat, Groveland, and Pine Mountain Lake. The Groveland CSD will pursue funding for the Project from the Urban Drought Relief Grant Program. The Urban Drought Relief Grant Program, administered by the California Department of Water Resources, is a state program that offers low-cost financing for a wide variety of drought relief and water quality projects. The proposed Project would not substantially deplete groundwater resources such that a significant environmental impact would occur. All potential development will be required to adhere to all CSD and State mandated water conservation measures and regulations. As such, any impacts to groundwater supplies will be *less than significant*.

Mitigation Measures: None are required.

- 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?

Less Than Significant Impact. As the proposed Project includes improvements to the CSD’s water supply, no component of the proposed Project would generate wastewater. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

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?

Less Than Significant Impact. Proposed Project construction and operation will generate minimal amounts of solid waste. The proposed new facilities will be un-manned and will not generate solid waste on an on-going basis. The proposed Project will comply with all federal, state and local statutes and regulations related to solid waste. Any impacts will be *less than significant*.

Mitigation Measures: None are required.

XX. WILDFIRE

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

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

RESPONSES

- a. Substantially impair an adopted emergency response plan or emergency evacuation plan?
- b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

- c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
- d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact. The proposed Project site consists of developed and disturbed land cover surrounded by oak and pine forest (Figures 11–17 of Appendix B). Land uses include commercial, residential, and recreational. The proposed Project components are located in areas that have been developed with urban uses within a forested area. There is no increased risk or on-going risk of wildfire beyond existing conditions associated with the Project.

As such, any wildfire risk to the Project structures or people would be *less than significant*.

Mitigation Measures: None are required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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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?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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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)?

<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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RESPONSES

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

Less Than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the proposed Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to *less than significant*.

- b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant Impact. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc.). The impact is *less than significant*.

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

Less Than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to *less than significant*.

Chapter 4

MITIGATION MONITORING & REPORTING PROGRAM

MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been formulated based upon the findings of the Initial Study/Mitigated Negative Declaration (IS/MND) for the Groveland Community Services District’s Drought Improvements Project (Project). The MMRP lists mitigation measures recommended in the IS/MND for the proposed Project and identifies monitoring and reporting requirements.

The first column of the Table identifies the mitigation measure. The second column, entitled “Party Responsible for Implementing Mitigation,” names the party responsible for carrying out the required action. The third column, “Implementation Timing,” identifies the time the mitigation measure should be initiated. The fourth column, “Party Responsible for Monitoring,” names the party ultimately responsible for ensuring that the mitigation measure is implemented. The last column will be used by the Groveland Community Services District to ensure that individual mitigation measures have been monitored.

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
Biology				
<p>BIO-1: Protect Northwestern Pond Turtle</p> <p>To A pre-construction clearance survey shall be conducted by a qualified biologist to ensure that northwestern pond turtle will not be impacted during Project construction. The pre-construction clearance survey shall be conducted no more than 14 days prior to the start of construction activities within 300 feet of potential aquatic habitat (Rattlesnake Creek and adjacent pond) for northwestern pond turtle. During this survey, the qualified biologist shall search all aquatic habitat for turtles and all potential nesting habitat on the Project site for active turtle nests. If a turtle is found, it will be allowed to the leave the area on its own. If an active turtle nest is found, the qualified biologist shall determine the extent of a construction-free buffer to be established and maintained around the nest for the duration of the nesting cycle. The biologist shall then work with construction personnel to install wildlife exclusion fencing along the buffer. This fencing should be a minimum of 36 inches tall and towed-in 6 inches below ground prior to construction activities. If fencing cannot be toed-in, the bottom of the fence</p>	Groveland CSD / Construction Contractor	Prior to and during construction	Groveland CSD / Construction Contractor	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
<p>will be weighted down with a continuous line of long, narrow sandbags or similar, to ensure there are no gaps under the fencing where wildlife could enter. One-way exit funnels directed away from construction activities will be installed to allow turtles and other small wildlife to exit the fenced enclosure.</p>				
<p>BIO-2: Protect Nesting Bald Eagle.</p> <ol style="list-style-type: none"> 1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through July. 2. If it is not possible to schedule construction between August and January, preconstruction surveys for nesting bald eagles shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates (large trees) within 0.5 miles of the impact areas at Pine Mountain Lake for nests. If an active nest is found close enough to the construction area to be disturbed by Project 	<p>Groveland CSD / Construction Contractor</p>	<p>Prior to and during construction</p>	<p>Groveland CSD / Construction Contractor</p>	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
<p>activities, the qualified biologist in consultation with the CDFW shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting eagles, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.</p>				
<p>BIO-3: Protect Western Red Bat.</p> <ol style="list-style-type: none"> 1. To the extent practicable, construction shall be scheduled to avoid the birthing and pupping season for western red bat, which extends from May through August. 2. If it is not possible to schedule construction between September and April, preconstruction surveys for roosting bats shall be conducted by a qualified biologist to ensure that no active maternal colonies will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential colony substrates in and immediately adjacent to the 	<p>Groveland CSD / Construction Contractor</p>	<p>Prior to and during construction</p>	<p>Groveland CSD / Construction Contractor</p>	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
<p>impact areas for maternity roosts. If an active maternity roost is found close enough to the construction area to be disturbed by work activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the colony. If work cannot proceed without disturbing the colony, work may need to be halted or redirected to other areas until young are able to fly or the colony has otherwise failed for non-construction related reasons.</p>				
<p>BIO-4: Protect nesting birds.</p> <ol style="list-style-type: none"> 1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August. 2. If it is not possible to schedule construction between September and January, preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest 	<p>Groveland CSD / Construction Contractor</p>	<p>Prior to and during construction</p>	<p>Groveland CSD / Construction Contractor</p>	

Mitigation Measure	Party responsible for Implementing Mitigation	Implementation Timing	Party responsible for Monitoring	Verification (name/date)
<p>substrates in and immediately adjacent to the impact areas for nests. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.</p>				
<p>Cultural</p>				
<p>CUL-1: In the event that archaeological remains are encountered at any time during development or ground-moving activities within the entire Project area, all work in the vicinity of the find should be halted until a qualified archaeologist can assess the discovery and take appropriate actions as necessary.</p>	<p>Groveland CSD / Construction Contractor</p>	<p>Prior to and during construction</p>	<p>Groveland CSD / Construction Contractor</p>	

Chapter 5

PREPARERS

LIST OF PREPARERS

Crawford & Bowen Planning, Inc.

- Travis Crawford, AICP, Principal Environmental Planner
- Deepesh Tourani, Environmental Planner

AM Consulting Engineers

- Alfonso Manrique, PE
- Brandon Cauble, Associate Engineer

Colibri Ecological Consulting, LLC

- Ryan Slezak, Biologist

Appendices

Appendix A

Air Emission Output Tables

Road Construction Emissions Model, Version 9.0.1

Daily Emission Estimates for -> Groveland Drought Improvements Project														
Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Grubbing/Land Clearing	0.04	0.42	0.04	10.02	0.02	10.00	2.09	0.01	2.08	0.00	114.46	0.00	0.00	115.57
Grading/Excavation	0.12	1.20	0.10	10.05	0.05	10.00	2.10	0.02	2.08	0.00	329.07	0.01	0.01	332.26
Drainage/Utilities/Sub-Grade	0.09	0.85	0.07	10.03	0.03	10.00	2.09	0.01	2.08	0.00	238.01	0.01	0.01	240.25
Paving	0.06	0.63	0.05	0.03	0.03	0.00	0.01	0.01	0.00	0.00	179.58	0.01	0.01	181.25
Maximum (pounds/day)	0.12	1.20	0.10	10.05	0.05	10.00	2.10	0.02	2.08	0.00	329.07	0.01	0.01	332.26
Total (tons/construction project)	0.02	0.19	0.02	1.69	0.01	1.68	0.35	0.00	0.35	0.00	51.06	0.00	0.00	51.55

Notes:
 Project Start Year -> 2023
 Project Length (months) -> 18
 Total Project Area (acres) -> 2
 Maximum Area Disturbed/Day (acres) -> 1
 Water Truck Used? -> No

Phase	Total Material Imported/Exported Volume (yd ³ /day)		Daily VMT (miles/day)			
	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	160	0
Grading/Excavation	0	0	0	0	460	0
Drainage/Utilities/Sub-Grade	0	0	0	0	340	0
Paving	0	0	0	0	260	0

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Groveland Drought Improvements Project														
Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Grubbing/Land Clearing	0.00	0.01	0.00	0.20	0.00	0.20	0.04	0.00	0.04	0.00	2.27	0.00	0.00	2.08
Grading/Excavation	0.01	0.11	0.01	0.90	0.00	0.89	0.19	0.00	0.19	0.00	29.32	0.00	0.00	26.86
Drainage/Utilities/Sub-Grade	0.01	0.05	0.00	0.60	0.00	0.59	0.12	0.00	0.12	0.00	14.14	0.00	0.00	12.95
Paving	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.33	0.00	0.00	4.88
Maximum (tons/phase)	0.01	0.11	0.01	0.90	0.00	0.89	0.19	0.00	0.19	0.00	29.32	0.00	0.00	26.86
Total (tons/construction project)	0.02	0.19	0.02	1.69	0.01	1.68	0.35	0.00	0.35	0.00	51.06	0.00	0.00	46.76

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1, 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

Groveland Drought Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

**Groveland Drought Improvements Project
Tuolumne County APCD Air District, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	40.00	1000sqft	0.92	40,000.00	0
General Light Industry	40.00	1000sqft	0.92	40,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.2	Precipitation Freq (Days)	66
Climate Zone	1			Operational Year	2025
Utility Company					
CO2 Intensity (lb/MWhr)	0	CH4 Intensity (lb/MWhr)	0	N2O Intensity (lb/MWhr)	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics - Project includes water supply improvement components. Project includes construction of:

- 1) two new groundwater wells,
- 2) a 140,000 gallon water storage tank,
- 3) 5500 linear feet of 8-inch water distribution pipeline (not included in CalEEMod, calculated separately),
- 4) water supply treatment system,
- 5) slide gate on alternate water supply intake.

Total area of potential effect for the wells, storage tank, and water treatment system is approximately 3 acres.

Land Use - Light Industry land use type is assumed for drilling and construction of the two new groundwater water wells (approximately 20,000 sq.ft. of disturbed area each), a new 140,000 gallon water storage tank (approximately 20,000 sq.ft. of disturbed area), and a new water supply treatment system (approximately 20,000 sq.ft. of disturbed area).

Emissions from the installation of distribution pipeline are calculated separately.

Table Name	Column Name	Default Value	New Value
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2.0 Emissions Summary

Groveland Drought Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1905	1.4310	1.5353	2.9900e-003	0.0559	0.0592	0.1151	0.0195	0.0569	0.0763	0.0000	254.0457	254.0457	0.0382	5.0700e-003	256.5108
2024	0.9365	0.0722	0.0985	1.7000e-004	1.8500e-003	3.0900e-003	4.9400e-003	5.0000e-004	2.9300e-003	3.4300e-003	0.0000	14.8183	14.8183	2.9100e-003	1.8000e-004	14.9436
Maximum	0.9365	1.4310	1.5353	2.9900e-003	0.0559	0.0592	0.1151	0.0195	0.0569	0.0763	0.0000	254.0457	254.0457	0.0382	5.0700e-003	256.5108

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.1905	1.4310	1.5353	2.9900e-003	0.0559	0.0592	0.1151	0.0195	0.0569	0.0763	0.0000	254.0454	254.0454	0.0382	5.0700e-003	256.5106
2024	0.9365	0.0722	0.0985	1.7000e-004	1.8500e-003	3.0900e-003	4.9400e-003	5.0000e-004	2.9300e-003	3.4300e-003	0.0000	14.8183	14.8183	2.9100e-003	1.8000e-004	14.9435
Maximum	0.9365	1.4310	1.5353	2.9900e-003	0.0559	0.0592	0.1151	0.0195	0.0569	0.0763	0.0000	254.0454	254.0454	0.0382	5.0700e-003	256.5106

Groveland Drought Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	2-27-2023	5-26-2023	0.4772	0.4772
2	5-27-2023	8-26-2023	0.4784	0.4784
3	8-27-2023	11-26-2023	0.4803	0.4803
4	11-27-2023	2-26-2024	1.1900	1.1900
		Highest	1.1900	1.1900

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4052	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003
Energy	1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	14.8565	14.8565	2.8000e-004	2.7000e-004	14.9448
Mobile	0.3599	0.5007	2.9150	4.2100e-003	0.3931	5.3600e-003	0.3985	0.1055	5.0500e-003	0.1105	0.0000	396.8663	396.8663	0.0362	0.0235	404.7750
Waste						0.0000	0.0000		0.0000	0.0000	20.1367	0.0000	20.1367	1.1901	0.0000	49.8878
Water						0.0000	0.0000		0.0000	0.0000	5.8692	0.0000	5.8692	0.6028	0.0142	25.1815
Total	0.7666	0.5143	2.9272	4.2900e-003	0.3931	6.4000e-003	0.3995	0.1055	6.0900e-003	0.1116	26.0059	411.7242	437.7301	1.8294	0.0380	494.7906

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2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.4052	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003
Energy	1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	14.8565	14.8565	2.8000e-004	2.7000e-004	14.9448
Mobile	0.3599	0.5007	2.9150	4.2100e-003	0.3931	5.3600e-003	0.3985	0.1055	5.0500e-003	0.1105	0.0000	396.8663	396.8663	0.0362	0.0235	404.7750
Waste						0.0000	0.0000		0.0000	0.0000	20.1367	0.0000	20.1367	1.1901	0.0000	49.8878
Water						0.0000	0.0000		0.0000	0.0000	5.8692	0.0000	5.8692	0.6028	0.0142	25.1815
Total	0.7666	0.5143	2.9272	4.2900e-003	0.3931	6.4000e-003	0.3995	0.1055	6.0900e-003	0.1116	26.0059	411.7242	437.7301	1.8294	0.0380	494.7906

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	2/27/2023	3/24/2023	5	20	
2	Site Preparation	Site Preparation	3/25/2023	3/28/2023	5	2	
3	Grading	Grading	3/29/2023	4/3/2023	5	4	

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4	Building Construction	Building Construction	4/4/2023	1/8/2024	5	200
5	Paving	Paving	1/9/2024	1/22/2024	5	10
6	Architectural Coating	Architectural Coating	1/23/2024	2/5/2024	5	10

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 120,000; Non-Residential Outdoor: 40,000; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor	
Architectural Coating	Air Compressors	1	6.00	78	0.48	
Paving	Cement and Mortar Mixers	1	6.00	9	0.56	
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73	
Building Construction	Cranes	1	6.00	231	0.29	
Building Construction	Forklifts	1	6.00	89	0.20	
Building Construction	Generator Sets	1	8.00	84	0.74	
Grading	Graders	1	8.00	187	0.41	
Site Preparation	Graders	1	8.00	187	0.41	
Paving	Pavers	1	6.00	130	0.42	
Paving	Paving Equipment	1	8.00	132	0.36	
Paving	Rollers	1	7.00	80	0.38	
Demolition	Rubber Tired Dozers	1	8.00	247	0.40	
Grading	Rubber Tired Dozers	1	8.00	247	0.40	
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40	
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37	
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37	
Grading	Tractors/Loaders/Backhoes	2	198	7.00	97	0.37

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Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	34.00	13.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0147	0.1432	0.1346	2.4000e-004		6.7700e-003	6.7700e-003		6.3300e-003	6.3300e-003	0.0000	21.0866	21.0866	5.3500e-003	0.0000	21.2202
Total	0.0147	0.1432	0.1346	2.4000e-004		6.7700e-003	6.7700e-003		6.3300e-003	6.3300e-003	0.0000	21.0866	21.0866	5.3500e-003	0.0000	21.2202

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3.2 Demolition - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-004	5.1000e-004	5.0900e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8928	0.8928	5.0000e-005	4.0000e-005	0.9048
Total	8.1000e-004	5.1000e-004	5.0900e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8928	0.8928	5.0000e-005	4.0000e-005	0.9048

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0147	0.1432	0.1346	2.4000e-004		6.7700e-003	6.7700e-003		6.3300e-003	6.3300e-003	0.0000	21.0865	21.0865	5.3500e-003	0.0000	21.2202
Total	0.0147	0.1432	0.1346	2.4000e-004		6.7700e-003	6.7700e-003		6.3300e-003	6.3300e-003	0.0000	21.0865	21.0865	5.3500e-003	0.0000	21.2202

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3.2 Demolition - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.1000e-004	5.1000e-004	5.0900e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8928	0.8928	5.0000e-005	4.0000e-005	0.9048
Total	8.1000e-004	5.1000e-004	5.0900e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8928	0.8928	5.0000e-005	4.0000e-005	0.9048

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1300e-003	0.0124	6.6400e-003	2.0000e-005		5.1000e-004	5.1000e-004		4.7000e-004	4.7000e-004	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	1.1300e-003	0.0124	6.6400e-003	2.0000e-005	6.2700e-003	5.1000e-004	6.7800e-003	3.0000e-003	4.7000e-004	3.4700e-003	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236

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3.3 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	3.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0549	0.0549	0.0000	0.0000	0.0557
Total	5.0000e-005	3.0000e-005	3.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0549	0.0549	0.0000	0.0000	0.0557

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.1300e-003	0.0124	6.6400e-003	2.0000e-005		5.1000e-004	5.1000e-004		4.7000e-004	4.7000e-004	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236
Total	1.1300e-003	0.0124	6.6400e-003	2.0000e-005	6.2700e-003	5.1000e-004	6.7800e-003	3.0000e-003	4.7000e-004	3.4700e-003	0.0000	1.5114	1.5114	4.9000e-004	0.0000	1.5236

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3.3 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	3.0000e-005	3.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0549	0.0549	0.0000	0.0000	0.0557
Total	5.0000e-005	3.0000e-005	3.1000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0549	0.0549	0.0000	0.0000	0.0557

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0289	0.0174	4.0000e-005		1.2100e-003	1.2100e-003		1.1100e-003	1.1100e-003	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	2.6700e-003	0.0289	0.0174	4.0000e-005	0.0142	1.2100e-003	0.0154	6.8500e-003	1.1100e-003	7.9600e-003	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501

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3.4 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	8.0000e-005	7.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1374	0.1374	1.0000e-005	1.0000e-005	0.1392
Total	1.3000e-004	8.0000e-005	7.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1374	0.1374	1.0000e-005	1.0000e-005	0.1392

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8500e-003	0.0000	6.8500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.6700e-003	0.0289	0.0174	4.0000e-005		1.2100e-003	1.2100e-003		1.1100e-003	1.1100e-003	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501
Total	2.6700e-003	0.0289	0.0174	4.0000e-005	0.0142	1.2100e-003	0.0154	6.8500e-003	1.1100e-003	7.9600e-003	0.0000	3.6208	3.6208	1.1700e-003	0.0000	3.6501

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3.4 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3000e-004	8.0000e-005	7.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1374	0.1374	1.0000e-005	1.0000e-005	0.1392
Total	1.3000e-004	8.0000e-005	7.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1374	0.1374	1.0000e-005	1.0000e-005	0.1392

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1478	1.1359	1.2233	2.1400e-003		0.0499	0.0499		0.0482	0.0482	0.0000	176.1512	176.1512	0.0299	0.0000	176.8990
Total	0.1478	1.1359	1.2233	2.1400e-003		0.0499	0.0499		0.0482	0.0482	0.0000	176.1512	176.1512	0.0299	0.0000	176.8990

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3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5900e-003	0.0970	0.0180	2.9000e-004	8.2100e-003	5.9000e-004	8.8000e-003	2.3700e-003	5.6000e-004	2.9400e-003	0.0000	27.9400	27.9400	1.1000e-004	4.1000e-003	29.1655
Worker	0.0207	0.0130	0.1292	2.4000e-004	0.0260	2.0000e-004	0.0262	6.9200e-003	1.8000e-004	7.1100e-003	0.0000	22.6506	22.6506	1.1500e-003	9.2000e-004	22.9529
Total	0.0233	0.1100	0.1472	5.3000e-004	0.0342	7.9000e-004	0.0350	9.2900e-003	7.4000e-004	0.0101	0.0000	50.5906	50.5906	1.2600e-003	5.0200e-003	52.1183

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1478	1.1359	1.2233	2.1400e-003		0.0499	0.0499		0.0482	0.0482	0.0000	176.1509	176.1509	0.0299	0.0000	176.8987
Total	0.1478	1.1359	1.2233	2.1400e-003		0.0499	0.0499		0.0482	0.0482	0.0000	176.1509	176.1509	0.0299	0.0000	176.8987

Groveland Drought Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.5900e-003	0.0970	0.0180	2.9000e-004	8.2100e-003	5.9000e-004	8.8000e-003	2.3700e-003	5.6000e-004	2.9400e-003	0.0000	27.9400	27.9400	1.1000e-004	4.1000e-003	29.1655
Worker	0.0207	0.0130	0.1292	2.4000e-004	0.0260	2.0000e-004	0.0262	6.9200e-003	1.8000e-004	7.1100e-003	0.0000	22.6506	22.6506	1.1500e-003	9.2000e-004	22.9529
Total	0.0233	0.1100	0.1472	5.3000e-004	0.0342	7.9000e-004	0.0350	9.2900e-003	7.4000e-004	0.0101	0.0000	50.5906	50.5906	1.2600e-003	5.0200e-003	52.1183

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2600e-003	0.0332	0.0376	7.0000e-005		1.3500e-003	1.3500e-003		1.3000e-003	1.3000e-003	0.0000	5.4483	5.4483	9.1000e-004	0.0000	5.4710
Total	4.2600e-003	0.0332	0.0376	7.0000e-005		1.3500e-003	1.3500e-003		1.3000e-003	1.3000e-003	0.0000	5.4483	5.4483	9.1000e-004	0.0000	5.4710

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3.5 Building Construction - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.8700e-003	5.4000e-004	1.0000e-005	2.5000e-004	2.0000e-005	2.7000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	0.8510	0.8510	0.0000	1.2000e-004	0.8881
Worker	6.0000e-004	3.6000e-004	3.6400e-003	1.0000e-005	8.0000e-004	1.0000e-005	8.1000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.6844	0.6844	3.0000e-005	3.0000e-005	0.6930
Total	6.8000e-004	3.2300e-003	4.1800e-003	2.0000e-005	1.0500e-003	3.0000e-005	1.0800e-003	2.8000e-004	3.0000e-005	3.1000e-004	0.0000	1.5353	1.5353	3.0000e-005	1.5000e-004	1.5811

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.2600e-003	0.0332	0.0376	7.0000e-005		1.3500e-003	1.3500e-003		1.3000e-003	1.3000e-003	0.0000	5.4483	5.4483	9.1000e-004	0.0000	5.4710
Total	4.2600e-003	0.0332	0.0376	7.0000e-005		1.3500e-003	1.3500e-003		1.3000e-003	1.3000e-003	0.0000	5.4483	5.4483	9.1000e-004	0.0000	5.4710

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3.5 Building Construction - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	8.0000e-005	2.8700e-003	5.4000e-004	1.0000e-005	2.5000e-004	2.0000e-005	2.7000e-004	7.0000e-005	2.0000e-005	9.0000e-005	0.0000	0.8510	0.8510	0.0000	1.2000e-004	0.8881
Worker	6.0000e-004	3.6000e-004	3.6400e-003	1.0000e-005	8.0000e-004	1.0000e-005	8.1000e-004	2.1000e-004	1.0000e-005	2.2000e-004	0.0000	0.6844	0.6844	3.0000e-005	3.0000e-005	0.6930
Total	6.8000e-004	3.2300e-003	4.1800e-003	2.0000e-005	1.0500e-003	3.0000e-005	1.0800e-003	2.8000e-004	3.0000e-005	3.1000e-004	0.0000	1.5353	1.5353	3.0000e-005	1.5000e-004	1.5811

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0900e-003	0.0293	0.0441	7.0000e-005		1.4100e-003	1.4100e-003		1.3000e-003	1.3000e-003	0.0000	5.8870	5.8870	1.8700e-003	0.0000	5.9337
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0900e-003	0.0293	0.0441	7.0000e-005		1.4100e-003	1.4100e-003		1.3000e-003	1.3000e-003	0.0000	5.8870	5.8870	1.8700e-003	0.0000	5.9337

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.3000e-004	2.3200e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4361	0.4361	2.0000e-005	2.0000e-005	0.4416
Total	3.8000e-004	2.3000e-004	2.3200e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4361	0.4361	2.0000e-005	2.0000e-005	0.4416

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.0900e-003	0.0293	0.0441	7.0000e-005		1.4100e-003	1.4100e-003		1.3000e-003	1.3000e-003	0.0000	5.8870	5.8870	1.8700e-003	0.0000	5.9337
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	3.0900e-003	0.0293	0.0441	7.0000e-005		1.4100e-003	1.4100e-003		1.3000e-003	1.3000e-003	0.0000	5.8870	5.8870	1.8700e-003	0.0000	5.9337

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.3000e-004	2.3200e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4361	0.4361	2.0000e-005	2.0000e-005	0.4416
Total	3.8000e-004	2.3000e-004	2.3200e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4361	0.4361	2.0000e-005	2.0000e-005	0.4416

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	0.9279	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.2000e-004	1.2500e-003	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2348	0.2348	1.0000e-005	1.0000e-005	0.2378
Total	2.1000e-004	1.2000e-004	1.2500e-003	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2348	0.2348	1.0000e-005	1.0000e-005	0.2378

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.9270					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.0000e-004	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784
Total	0.9279	6.0900e-003	9.0500e-003	1.0000e-005		3.0000e-004	3.0000e-004		3.0000e-004	3.0000e-004	0.0000	1.2766	1.2766	7.0000e-005	0.0000	1.2784

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3.7 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.1000e-004	1.2000e-004	1.2500e-003	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2348	0.2348	1.0000e-005	1.0000e-005	0.2378
Total	2.1000e-004	1.2000e-004	1.2500e-003	0.0000	2.8000e-004	0.0000	2.8000e-004	7.0000e-005	0.0000	8.0000e-005	0.0000	0.2348	0.2348	1.0000e-005	1.0000e-005	0.2378

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.3599	0.5007	2.9150	4.2100e-003	0.3931	5.3600e-003	0.3985	0.1055	5.0500e-003	0.1105	0.0000	396.8663	396.8663	0.0362	0.0235	404.7750
Unmitigated	0.3599	0.5007	2.9150	4.2100e-003	0.3931	5.3600e-003	0.3985	0.1055	5.0500e-003	0.1105	0.0000	396.8663	396.8663	0.0362	0.0235	404.7750

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	198.40	79.60	200.00	530,350	530,350
General Light Industry	198.40	79.60	200.00	530,350	530,350
Total	396.80	159.20	400.00	1,060,700	1,060,700

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.420294	0.072342	0.207287	0.162730	0.060283	0.010856	0.007507	0.003631	0.001123	0.000422	0.043564	0.002033	0.007929

5.0 Energy Detail

Groveland Drought Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	14.8565	14.8565	2.8000e-004	2.7000e-004	14.9448
NaturalGas Unmitigated	1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	14.8565	14.8565	2.8000e-004	2.7000e-004	14.9448

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	139200	1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	14.8565	14.8565	2.8000e-004	2.7000e-004	14.9448
Total		1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	14.8565	14.8565	2.8000e-004	2.7000e-004	14.9448

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	139200	1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	14.8565	14.8565	2.8000e-004	2.7000e-004	14.9448
Total		1.5000e-003	0.0137	0.0115	8.0000e-005		1.0400e-003	1.0400e-003		1.0400e-003	1.0400e-003	0.0000	14.8565	14.8565	2.8000e-004	2.7000e-004	14.9448

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	168800	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	168800	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

6.0 Area Detail

6.1 Mitigation Measures Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.4052	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003
Unmitigated	0.4052	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0927					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3124					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003
Total	0.4052	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003

Groveland Drought Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0927					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.3124					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.0000e-005	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003
Total	0.4052	1.0000e-005	7.3000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4300e-003	1.4300e-003	0.0000	0.0000	1.5200e-003

7.0 Water Detail

7.1 Mitigation Measures Water

Groveland Drought Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.8692	0.6028	0.0142	25.1815
Unmitigated	5.8692	0.6028	0.0142	25.1815

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	18.5 / 0	5.8692	0.6028	0.0142	25.1815
Total		5.8692	0.6028	0.0142	25.1815

Groveland Drought Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	18.5 / 0	5.8692	0.6028	0.0142	25.1815
Total		5.8692	0.6028	0.0142	25.1815

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	20.1367	1.1901	0.0000	49.8878
Unmitigated	20.1367	1.1901	0.0000	49.8878

Groveland Drought Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	99.2	20.1367	1.1901	0.0000	49.8878
Total		20.1367	1.1901	0.0000	49.8878

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	99.2	20.1367	1.1901	0.0000	49.8878
Total		20.1367	1.1901	0.0000	49.8878

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	-----------	-------------	-------------	-----------

Groveland Drought Improvements Project - Tuolumne County APCD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
----------------	--------	-----------	------------	-------------	-------------	-----------

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
----------------	--------	----------------	-----------------	---------------	-----------

User Defined Equipment

Equipment Type	Number
----------------	--------

11.0 Vegetation

Appendix B

Biological Report

BIOLOGICAL RESOURCE EVALUATION

January 2023

GROVELAND DROUGHT IMPROVEMENTS PROJECT
TUOLUMNE COUNTY, CALIFORNIA



PREPARED FOR:
Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 302
Visalia, CA 93291

PREPARED BY:
Colibri Ecological Consulting, LLC
9493 N Fort Washington Road, Suite 108
Paso, CA 93730
www.colibri-ecology.com

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Executive Summary

The Groveland Community Services District (District) proposes to improve the drinking water infrastructure in Big Oak Flat, Groveland, and the Pine Mountain Lake subdivision in Tuolumne County, California. This drinking water infrastructure improvement project (Project) will involve installing a new groundwater well, installing a new water storage tank and distribution line, relocating the alternate water supply water treatment system, and improving the alternate water supply intake. The purpose of the Project is to ensure an adequate water supply during drought conditions.

This District will pursue funding for the Project from the Urban Drought Relief Grant Program. The Urban Drought Relief Grant Program is a state program that offers low-cost financing for a wide variety of drought relief and water quality projects. It is administered by the California Department of Water Resources (DWR) and requires 25 percent non-state cost sharing, which may come from federal sources. Therefore, the Project must not only meet environmental documentation and review requirements under the California Environmental Quality Act (CEQA) but must meet federal cross-cutting requirements as well.

To evaluate whether the Project may affect biological resources under CEQA and federal cross-cutting purview, we (1) obtained lists of special-status species from the United States Fish and Wildlife Service, the California Department of Fish and Wildlife, and the California Native Plant Society; (2) reviewed other relevant background information such as satellite imagery and topographic maps; and (3) conducted a field reconnaissance survey at the Project site.

This biological resource evaluation summarizes (1) existing biological conditions on the Project site, (2) the potential for special-status species and regulated habitats to occur on or near the project site, (3) the potential impacts of the proposed project on biological resources and regulated habitats, and (4) measures to reduce those potential impacts to less-than-significant levels under CEQA.

We concluded the Project could affect three special-status wildlife species: the state listed as endangered and fully protected bald eagle (*Haliaeetus leucocephalus*), the state species of special concern northwestern pond turtle (*Actinemys marmorata*), and the state species of special concern western red bat (*Lasiurus blossevillii*). Nesting migratory birds could also be impacted. Impacts to all species can be reduced to less-than-significant levels with mitigation.

Abbreviations

Abbreviation	Definition
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
DWR	California Department of Water Resources
EFH	Essential Fish Habitat
FE	Federally listed as Endangered
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FP	State Fully Protected
FT	Federally listed as Threatened
MBTA	Migratory Bird Treaty Act
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
SE	State listed as Endangered
SR	State Rare
SSSC	State Species of Special Concern
ST	State listed as Threatened
SWRCB	State Water Resources Control Board
USACE	United States Army Corps of Engineers
USC	United States Code
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

1.0 Introduction

1.1 Background

The Groveland Community Services District (District) proposes to improve drinking water infrastructure in Big Oak Flat, Groveland, and the Pine Mountain Lake subdivision. The District will pursue funding for this drinking water infrastructure improvement project (Project) from the Urban Drought Relief Grant Program. The Urban Drought Relief Grant Program is a state program that offers low-cost financing for a wide variety of drought relief and water quality projects. It is administered by the California Department of Water Resources (DWR) and requires 25 percent non-state cost sharing, which may come from federal sources. Therefore, the Project must not only meet environmental documentation and review requirements under the California Environmental Quality Act (CEQA) but must meet federal cross-cutting requirements as well.

The purpose of this biological resource evaluation is to assess whether the Project will affect state- or federally protected resources pursuant to CEQA and federal cross-cutting regulatory guidelines. Such resources include species of plants or animals listed or proposed for listing under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA), as well as those covered under the Migratory Bird Treaty Act (MBTA), the California Native Plant Protection Act, and various other sections of the California Fish and Game Code. Biological resources considered here also include designated or proposed critical habitat recognized under the FESA. This biological resource evaluation also addresses Project-related impacts to regulated habitats, which are those under the jurisdiction of the United States Army Corps of Engineers (USACE), State Water Resources Control Board (SWRCB), or California Department of Fish and Wildlife (CDFW), as well as those addressed under the Wild and Scenic Rivers Act, Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), and Executive Order 11988 pertaining to floodplain management.

1.2 Project Description

The Project will involve five components: (1) installing a hard rock groundwater well adjacent to an existing storage tank (Tank 5), (2) installing a 140,000-gallon storage tank next to Tank 5 and 5500 linear feet of 8-inch water distribution pipeline from Tank 5 to Big Oak Flat, (3) relocating the existing trailer mounted alternate water supply treatment system to a permanent location and installing an interconnection pipeline between the new and existing locations, (4) installing a hard rock groundwater well at the alternate water supply treatment system permanent location, and (5) installing a slide gate on the alternate water supply intake.

1.3 Project Location

The Project is in and adjacent to Big Oak Flat, Groveland, and the Pine Mountain Lake subdivision of Groveland in Tuolumne County, California (Figure 1). Specifically, the groundwater well and 140,000-gallon water storage tank will be constructed at the existing Tank 5 site at 18790 Vernal Drive (Figure 2). An 8-inch water distribution pipeline will run from the new water storage tank to Big Oak Flat via Vernal Drive, Merrell Road, Harper Road, and Black Road (Figure 3). The existing trailer mounted alternate water supply treatment system will be relocated from the Pine Mountain Lake maintenance yard at 12756 Mueller Drive to a new location adjacent to an abandoned baseball field at 19000 Ferretti Road (Figure 4). An interconnection pipeline will run between the new and existing locations via Par Court, Mueller Drive, Ferretti Road, and Flint Court. A new hard rock groundwater well will also be installed at the 19000 Ferretti Road work site. A slide gate will be installed on the alternate water supply intake adjacent to Pine Mountain Lake at Dunn Court Beach in the Pine Mountain Lake subdivision (Figure 5).

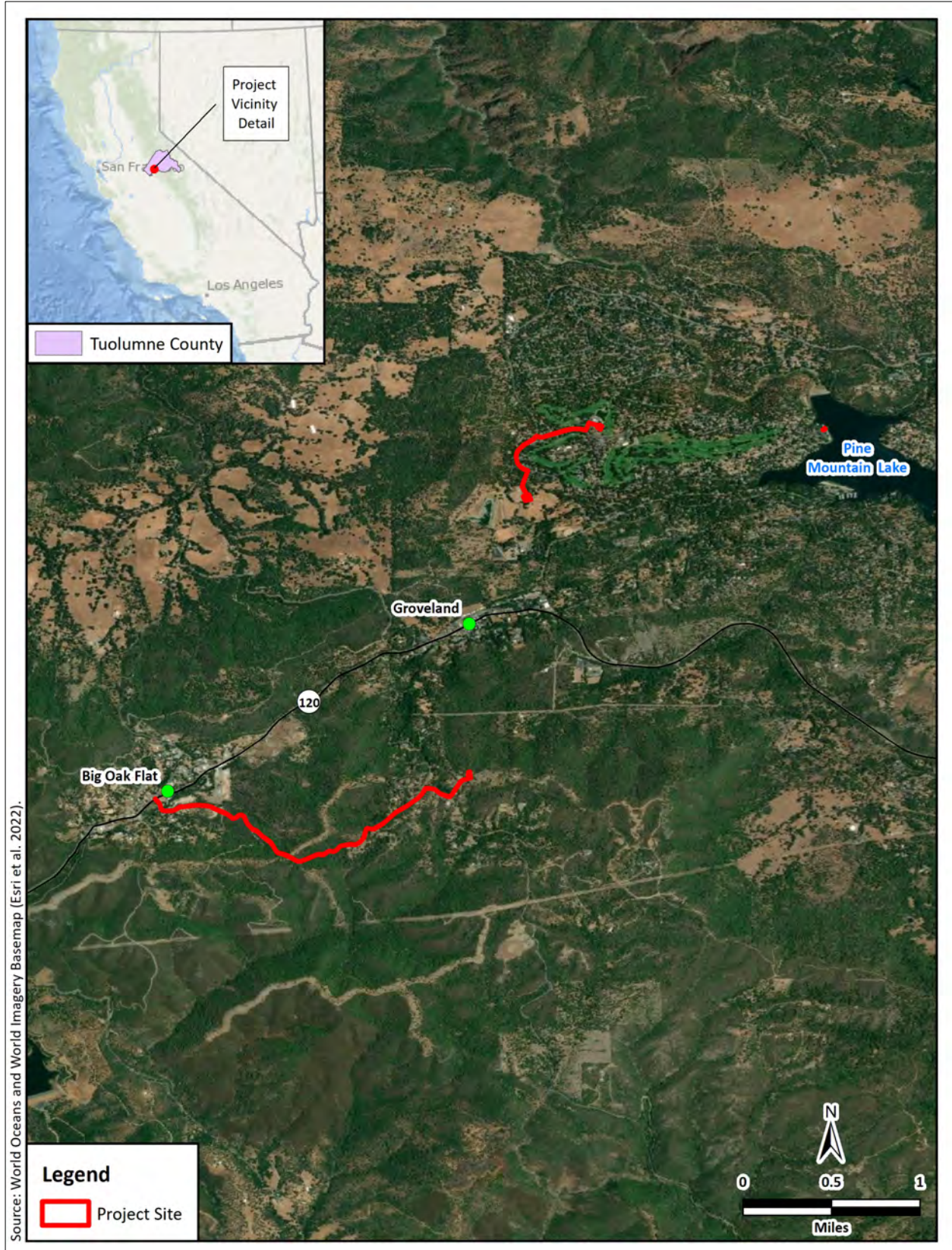


Figure 1. Project site vicinity map.



Figure 2. Groundwater well and water storage tank site map.

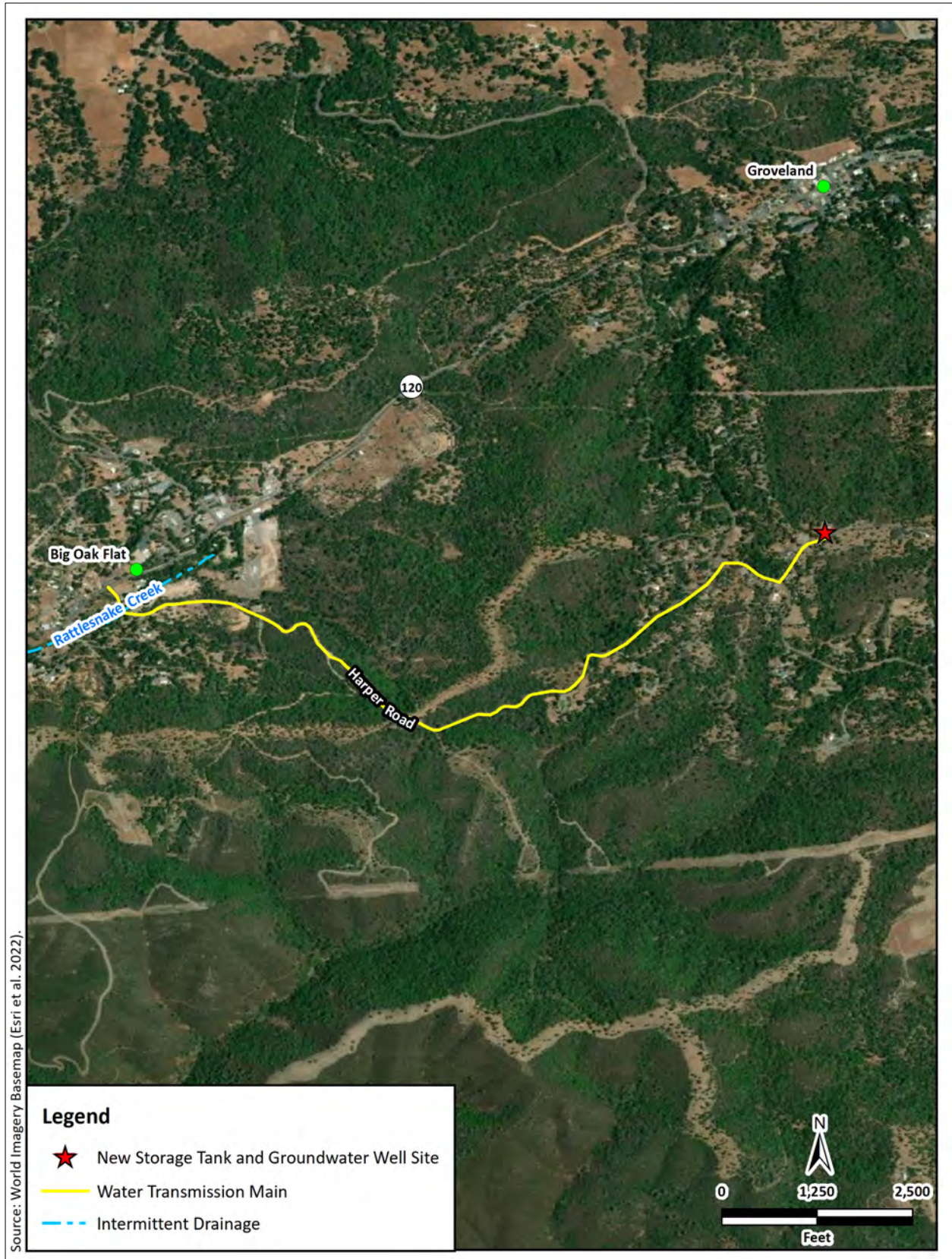


Figure 3. Water distribution pipeline site map.



Figure 4. Alternate water supply treatment and groundwater well site map.



Figure 5. Alternate water supply intake site map.

1.4 Purpose and Need of Proposed Project

The purpose of the Project is to improve existing drinking water infrastructure for Big Oak Flat, Groveland, and the Pine Mountain Lake subdivision. The Project is needed to ensure an adequate water supply during drought conditions.

1.5 Consultation History

Lists of all species listed or proposed for listing as threatened or endangered and all designated or proposed critical habitat under the FESA that could occur near the Project site were obtained by Colibri Senior Scientist Ryan Slezak from the United States Fish and Wildlife Service (USFWS) website (<https://ecos.fws.gov/ipac/>) on 3 November 2022 (Appendix A).

1.6 Regulatory Framework

The relevant regulatory requirements and policies that guide the impact analysis of the Project are summarized below.

1.6.1 Federal Requirements

Bald and Golden Eagle Protection Act. The Bald and Golden Eagle Protection Act (16 USC § 668-668d), originally the Bald Eagle Protection Act, was enacted in 1940 to protect bald eagle (*Haliaeetus leucocephalus*), the species selected as a national emblem of the United States. The act was amended in 1962 to include the golden eagle (*Aquila chrysaetos*). As amended, the Act prohibits take, possession, and commerce of bald and golden eagles and their parts, products, nests, or eggs, except by valid permit. Take is defined as “*pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb.*” Disturb means agitating or bothering to a degree that causes, or is likely to cause, injury, a decrease in productivity, or nest abandonment. This law also prohibits human-induced alterations near previously used nest sites when eagles are not present if upon the eagle’s return it is disturbed as defined above. Take permits may be issued for conducting certain types of lawful activities such as scientific research, propagation, and Indian religious purposes. The USFWS is responsible for enforcing this act.

Executive Order 11988: Floodplain Management. Executive Order 11988 (42 Federal Register 26951, 3 CFR, 1977 Comp., p. 117) requires federal agencies to avoid to the extent possible the long-term and short-term adverse effects associated with occupying and modifying flood plains and to avoid direct and indirect support of developing floodplains wherever there is a practicable alternative.

Federal Endangered Species Act. The United States Fish and Wildlife Service (USFWS) and the National Oceanographic and Atmospheric Administration’s (NOAA) National Marine Fisheries Service (NMFS) enforce the provisions stipulated in the Federal Endangered Species Act of 1973

(FESA, 16 United States Code [USC] § 1531 et seq.). Threatened and endangered species on the federal list (50 Code of Federal Regulations [CFR] 17.11 and 17.12) are protected from take unless a Section 10 permit is granted to an entity other than a federal agency or a Biological Opinion with incidental take provisions is rendered to a federal lead agency via a Section 7 consultation. Take is defined as harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. Pursuant to the requirements of the FESA, an agency reviewing a proposed action within its jurisdiction must determine whether any federally listed species may be present in the project site and determine whether the proposed action may affect such species. Under the FESA, habitat loss is considered an effect to a species. In addition, the agency is required to determine whether the proposed action is likely to jeopardize the continued existence of any species that is listed or proposed for listing under the FESA (16 USC § 1536[3], [4]). Therefore, proposed action-related effects to these species or their habitats would be considered significant and would require mitigation.

Magnuson-Stevens Fishery Conservation and Management Act. The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (Public law 94-265; Statutes at Large 90 Stat. 331; 16 U.S.C. ch. 38 § 1801 et seq.) establishes a management system for national marine and estuarine fishery resources. This legislation requires that all federal agencies consult the NMFS regarding all actions or proposed actions permitted, funded, or undertaken that may adversely affect “essential fish habitat (EFH).” EFH is defined as “waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity.” The Magnuson-Stevens Act states that migratory routes to and from anadromous fish spawning grounds are considered EFH. The phrase “adversely affect” refers to any effect that reduces the quality or quantity of EFH. Federal activities that occur outside of EFH, but which may affect EFH must also be considered. The Act applies to salmon species, groundfish species, highly migratory species such as tuna, and coastal pelagic species such as anchovies.

Migratory Bird Treaty Act. The federal Migratory Bird Treaty Act (MBTA) (16 USC § 703, Supp. I, 1989) prohibits killing, possessing, trading, or other forms of take of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. “Take” is defined as the pursuing, hunting, shooting, capturing, collecting, or killing of birds, their nests, eggs, or young (16 USC § 703 and § 715n). This act encompasses whole birds, parts of birds, and bird nests and eggs. The MBTA specifically protects migratory bird nests from possession, sale, purchase, barter transport, import, and export, and take. For nests, the definition of take per 50 CFR 10.12 is to collect. The MBTA does not include a definition of an “active nest.” However, the “Migratory Bird Permit Memorandum” issued by the USFWS in 2003 and updated in 2018 clarifies the MBTA in that regard and states that the removal of nests, without eggs or birds, is legal under the MBTA, provided no possession (which is interpreted as holding the nest with the intent of retaining it) occurs during the destruction (USFWS 2018).

National Environmental Policy Act. The purposes of the National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. §§ 4321–4347), including all relevant subsequent guidelines and regulations, include encouraging “harmony between [humans] and their environment and promoting efforts which will prevent or eliminate damage to the environment...

and stimulate the health and welfare of [humanity]". The purposes of NEPA are accomplished by evaluating the effects of federal actions. The results of these evaluations are presented to the public, federal agencies, and public officials in document format (e.g., Environmental Assessments and Environmental Impact Statements) for consideration prior to taking official action or making official decisions. Environmental documents prepared pursuant to NEPA must be completed before federal actions can be implemented. The NEPA process requires careful evaluation of the need for action, and that federal actions be considered alongside all reasonable alternatives, including the No Action alternative. NEPA also requires that the potential impacts on the human environment be considered for each alternative. Detailed implementing regulations for NEPA are contained in 40 C.F.R. 1500 et seq.

United States Army Corps of Engineers Jurisdiction. Areas meeting the regulatory definition of "waters of the United States" (jurisdictional waters) are subject to the jurisdiction of the USACE under provisions of Section 404 of the Clean Water Act (1972) and Section 10 of the Rivers and Harbors Act (1899). These waters may include all waters used, or potentially used, for interstate commerce, including all waters subject to the ebb and flow of the tide, all interstate waters, all other waters (intrastate lakes, rivers, streams, mudflats, sandflats, playa lakes, natural ponds, etc.), all impoundments of waters otherwise defined as waters of the United States, tributaries of waters otherwise defined as waters of the United States, the territorial seas, and wetlands adjacent to waters of the United States (33 CFR part 328.3). Wetlands on non-agricultural lands are identified using the Corps of Engineers Wetlands Delineation Manual and related Regional Supplement (USACE 1987 and 2008). Construction activities, including direct removal, filling, hydrologic disruption, or other means in jurisdictional waters are regulated by the USACE. The placement of dredged or fill material into such waters must comply with permit requirements of the USACE. No USACE permit will be effective in the absence of state water quality certification pursuant to Section 401 of the Clean Water Act. The SWRCB is the state agency (together with the Regional Water Quality Control Boards) charged with implementing water quality certification in California.

Wild and Scenic Rivers Act. The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with significant natural, cultural, and recreational values in a free-flowing condition. The Act safeguards the special character of these rivers, while also recognizing the potential for their appropriate use and development.

1.6.2 State Requirements

California Department of Fish and Wildlife Jurisdiction. The CDFW has regulatory jurisdiction over lakes and streams in California. Activities that divert or obstruct the natural flow of a stream; substantially change its bed, channel, or bank; or use any materials (including vegetation) from the streambed, may require that the project applicant enter into a Streambed Alteration Agreement with the CDFW in accordance with California Fish and Game Code Section 1602.

California Endangered Species Act. The California Endangered Species Act (CESA) of 1970 (Fish and Game Code § 2050 et seq., and California Code of Regulations [CCR] Title 14, Subsection 670.2, 670.51) prohibits the take of species listed under CESA (14 CCR Subsection 670.2, 670.5). Take is defined as hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill. Under CESA, state agencies are required to consult with the CDFW when preparing CEQA documents. Consultation ensures that proposed projects or actions do not have a negative effect on state-listed species. During consultation, CDFW determines whether take would occur and identifies “reasonable and prudent alternatives” for the project and conservation of special-status species. CDFW can authorize take of state-listed species under Sections 2080.1 and 2081(b) of the California Fish and Game Code in those cases where it is demonstrated that the impacts are minimized and mitigated. Take authorized under section 2081(b) must be minimized and fully mitigated. A CESA permit must be obtained if a project will result in take of listed species, either during construction or over the life of the project. Under CESA, CDFW is responsible for maintaining a list of threatened and endangered species designated under state law (Fish and Game Code § 2070). CDFW also maintains lists of species of special concern, which serve as “watch lists.” Pursuant to the requirements of CESA, a state or local agency reviewing a proposed project within its jurisdiction must determine whether the proposed Project will have a potentially significant impact upon such species. Project-related impacts to species on the CESA list would be considered significant and would require mitigation. Impacts to species of concern or fully protected species would be considered significant under certain circumstances.

California Environmental Quality Act. The California Environmental Quality Act (CEQA) of 1970 (Subsections 21000–21178) requires that CDFW be consulted during the CEQA review process regarding impacts of proposed projects on special-status species. Special-status species are defined under CEQA Guidelines subsection 15380(b) and (d) as those listed under FESA and CESA and species that are not currently protected by statute or regulation but would be considered rare, threatened, or endangered under these criteria or by the scientific community. Therefore, species considered rare or endangered are addressed in this biological resource evaluation regardless of whether they are afforded protection through any other statute or regulation. The California Native Plant Society (CNPS) inventories the native flora of California and ranks species according to rarity (CNPS 2022). Plants with Rare Plant Ranks 1A, 1B, 2A, or 2B are considered special-status species under CEQA.

Although threatened and endangered species are protected by specific federal and state statutes, CEQA Guidelines Section 15380(d) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if it can be shown to meet certain specified criteria. These criteria have been modeled after the definition in the FESA and the section of the California Fish and Game Code dealing with rare and endangered plants and animals. Section 15380(d) allows a public agency to undertake a review to determine if a significant effect on species that have not yet been listed by either the USFWS or CDFW (i.e., candidate species) would occur. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agency has an opportunity to designate the species as protected, if warranted.

California Native Plant Protection Act. The California Native Plant Protection Act of 1977 (California Fish and Game Code §§ 1900–1913) requires all state agencies to use their authority to carry out programs to conserve endangered and otherwise rare species of native plants. Provisions of the act prohibit the taking of listed plants from the wild and require the project proponent to notify CDFW at least 10 days in advance of any change in land use, which allows CDFW to salvage listed plants that would otherwise be destroyed.

Nesting birds. California Fish and Game Code Sections 3503, 3503.5, 3513, and 3800 prohibit the possession, incidental take, or needless destruction of birds, their nests, and eggs. California Fish and Game Code Section 3511 lists birds that are “Fully Protected” as those that may not be taken or possessed except under specific permit.

Porter-Cologne Water Quality Control Act. The Porter-Cologne Water Quality Control Act (CWC § 13000 et. sec.) was established in 1969 and entrusts the State Water Resources Control Board and nine Regional Water Quality Control Boards (collectively Water Boards) with the responsibility to preserve and enhance all beneficial uses of California’s diverse waters. The Act grants the Water Boards authority to establish water quality objectives and regulate point- and nonpoint-source pollution discharge to the state’s surface and ground waters. Under the auspices of the United States Environmental Protection Agency, the Water Boards are responsible for certifying, under Section 401 of the federal Clean Water Act, that activities affecting waters of the United States comply California water quality standards. The Porter-Cologne Water Quality Control Act addresses all “waters of the State,” which are more broadly defined than waters of the United States. Waters of the State include any surface water or groundwater, including saline waters, within the boundaries of the state. They include artificial as well as natural water bodies and federally jurisdictional and federally non-jurisdictional waters. The Water Boards may issue a Waste Discharge Requirements permit for projects that will affect only federally non-jurisdictional waters of the State.

2.0 Methods

2.1 Desktop Review

As a framework for the evaluation and reconnaissance survey, we obtained an official USFWS species list for the Project (USFWS 2022a, Appendix A). In addition, we searched the California Natural Diversity Database (CNDDDB, CDFW 2022, Appendix B) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2022, Appendix C) for records of special-status plant and animal species from the vicinity of the Project site. Regional lists of special-status species were compiled using USFWS, CNDDDB, and CNPS database searches confined to the Groveland 7.5-minute United States Geological Survey (USGS) topographic quadrangle, which encompasses the Project site, and the eight surrounding quadrangles (Buckhorn Peak, Coulterville, Duckwall Mountain, Jawbone Ridge, Moccasin, Penon Blanco Peak, Standard, and Tuolumne). A local list of special-status species was compiled using CNDDDB records from within 5 miles of the Project site. Species that lack a CEQA-recognized special-status designation by state or federal regulatory agencies or public interest groups were omitted from the final list. Species for which the Project site does not provide habitat were eliminated from further consideration. We also reviewed satellite imagery from Google Earth (Google 2022) and other sources, USGS topographic maps, the Web Soil Survey (NRCS 2022), the National Wetlands Inventory (USFWS 2022b), and relevant literature.

2.2 Reconnaissance Survey

Colibri Senior Scientist Ryan Slezak and Field Scientist Jordan Spindel conducted a field reconnaissance survey of the Project site on 4 November 2022. The Project site and a 50-foot buffer surrounding the Project site (Figures 6–9) were walked and thoroughly inspected to evaluate and document the potential for the area to support state- or federally protected resources. All plants except those under cultivation or planted in residential areas and all vertebrate wildlife species observed within the survey area were identified and documented. The survey area was evaluated for the presence of regulated habitats, including lakes, streams, and other waters using methods described in the *Wetlands Delineation Manual* and regional supplement (USACE 1987, 2008) and as defined by the CDFW (<https://www.wildlife.ca.gov/conservation/lisa>) or under the Porter-Cologne Water Quality Control Act.

2.3 Effects Analysis and Significance Criteria

2.3.1 Effects Analysis

Factors considered in evaluating the effects of the Project on special-status species included the (1) presence of designated or proposed critical habitat in the survey area, (2) potential for the

survey area to support special-status species, (3) dependence of any such species on specific habitat components that would be removed or modified, (4) the degree of effects to the habitat, (5) abundance and distribution of the habitat in the region, (6) distribution and population levels of the species, (7) cumulative effects of the Project and any future activities in the area, and (8) the potential to mitigate any adverse effects.

Factors considered in evaluating the effects of the Project on bald eagle, golden eagle, and migratory birds included the potential for the Project to result in (1) mortality of eagles or migratory birds or (2) loss of their nests containing viable eggs or nestlings.

Factors considered in evaluating the effects of the Project on regulated habitats included the (1) presence of features comprising or potentially comprising waters of the United States, Wild and Scenic Rivers, essential fish habitat (EFH), floodplains, and lakes or streams within the survey area, and (2) potential for the Project to affect such habitats.

2.3.2 Significance Criteria

CEQA defines "significant effect on the environment" as "a substantial, or potentially substantial, adverse change in the environment" (Pub. Res. Code § 21068). Under CEQA Guidelines Section 15065, a Project's effects on biological resources are deemed significant where the Project would do the following:

- a) Substantially reduce the habitat of a fish or wildlife species,
- b) Cause a fish or wildlife population to drop below self-sustaining levels,
- c) Threaten to eliminate a plant or animal community, or
- d) Substantially reduce the number or restrict the range of a rare or endangered plant or animal.

In addition to the Section 15065 criteria, Appendix G within the CEQA Guidelines includes six additional impacts to consider when analyzing the effects of a project. Under Appendix G, a project's effects on biological resources are deemed significant where the project would do any of the following:

- e) 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 CDFW or USFWS;
- f) 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 CDFW or USFWS;

- g) 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;
- h) 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;
- i) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- j) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

These criteria were used to determine whether the potential effects of the Project on biological resources qualify as significant.



Figure 6. Groundwater well and water storage tank reconnaissance survey area map.

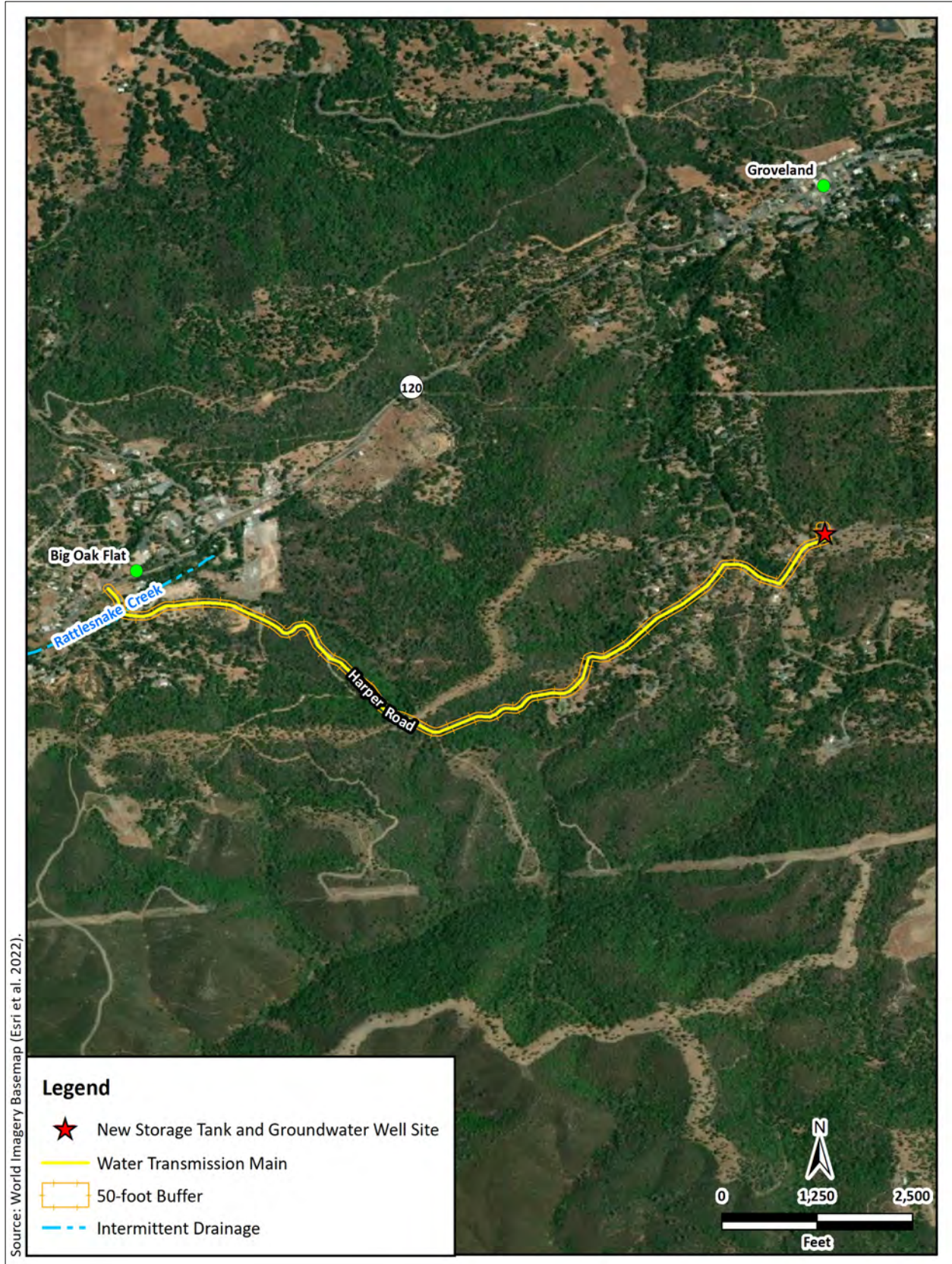


Figure 7. Water distribution pipeline reconnaissance survey area map.

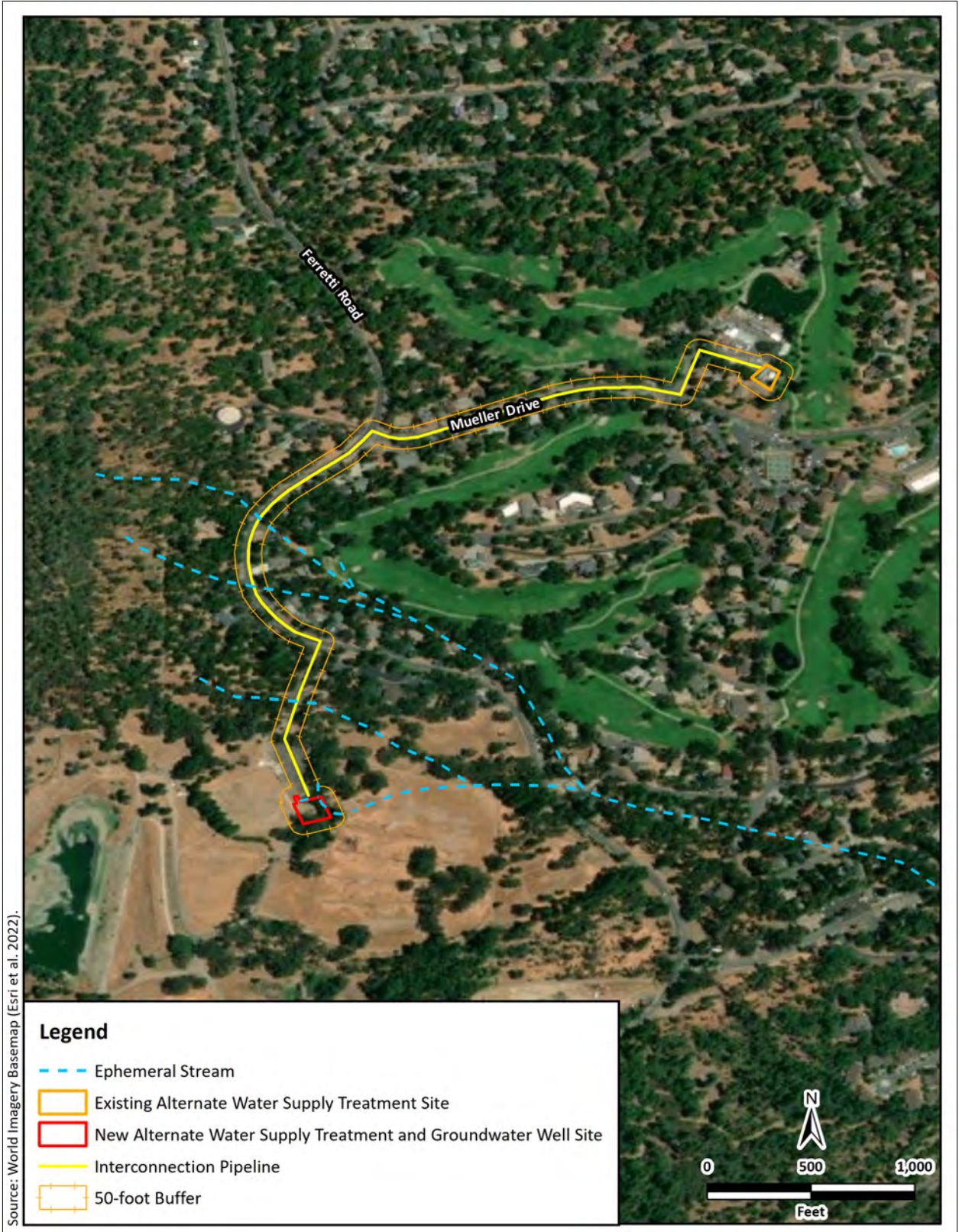


Figure 8. Alternate water supply treatment and groundwater well reconnaissance survey area map.



Figure 9. Alternate water supply intake reconnaissance survey area map.

3.0 Results

3.1 Desktop Review

The USFWS species list for the Project site included six species listed as threatened, endangered, or candidate under the FESA (USFWS 2022a, Table 1, Appendix A). Of those six species, none are expected to occur on or near the Project site due to (1) the lack of habitat, (2) the Project site being outside the current range of the species, or (3) the presence of development that would otherwise preclude occurrence (Table 1). As identified in the species list, the Project site does not occur in USFWS-designated or proposed critical habitat for any species (USFWS 2022a, Appendix A).

Searching the CNDDDB for records of special-status species from the Groveland 7.5-minute USGS topographic quad and the eight surrounding quads produced 284 records of 48 species (Table 1, Appendix B). Of those 48 species, 15 are not given further consideration because they are not CEQA-recognized as special-status species by state or federal regulatory agencies or public interest groups or are considered extirpated in California (Appendix B). Of the remaining 33 species, 17 are known from within 5 miles of the Project site (Table 1, Figure 10). Of those species, the state-listed as endangered and fully protected bald eagle (*Haliaeetus leucocephalus*) and two CDFW-designated species of special concern, northwestern pond turtle (*Actinemys marmorata*) and western red bat (*Lasiurus blossevillii*), could occur on or near the Project site (Table 1).

Searching the CNPS inventory of rare and endangered plants of California yielded 37 species (CNPS 2022, Appendix C), 18 of which have a CNPS California Rare Plant Rank of 1 or 2 (Table 1). None of those species are expected to occur on or near the Project site due to (1) lack of habitat, (2) the Project site being outside the current range of the species, or (3) lack of detection during the 4 November 2022 field survey (Table 1).

The Project site is underlain by soil complexes consisting of Arpatutu, Copperopolis, Hetchy, Hotaw, Musick, Nedsgulch, Ultic Haploxeralfs, and Wallyhill soil series with 0–60 percent slopes (NCRS 2022). The Project site is at an elevation of 2565–3425 feet above mean sea level (Google 2022).

Table 1. Special-status species, their listing status, habitats, and potential to occur on or near the Project site.

Species	Status ¹	Habitat	Potential to Occur ²
Federally and State-Listed Endangered or Threatened Species			
Layne’s ragwort (<i>Packera layneae</i>)	FT, SR, 1B.2	Openings and disturbed areas with serpentine soils in chaparral and foothill woodland at 984–2953 feet elevation.	None. Habitat lacking; serpentine soils were absent from the Project site; no records from within 5 miles.
Crotch bumble bee (<i>Bombus crotchii</i>)	SC	Open grassland and scrub habitats with <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> as food plants.	None. Habitat lacking; no open grassland and scrub habitats with <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> were detected on the Project site.
Monarch butterfly – California overwintering population (<i>Danaus plexippus</i>)	FC	Groves of trees within 1.5 miles of the ocean that produce suitable micro-climates for overwintering such as high humidity, dappled sunlight, access to water and nectar, and protection from wind.	None. Habitat lacking; the Project site is not within 1.5 miles of the ocean.
Valley elderberry longhorn beetle (<i>Desmocerus californicus dimorphus</i>)	FT	Elderberry (<i>Sambucus</i> sp.) plants in the Central Valley with stems > 1 inch diameter at ground level.	None. No records from within 5 miles; the Project site is outside the current known range of this species.
Delta smelt (<i>Hypomesus transpacificus</i>)	FT, SE	Shallow, fresh, or slightly brackish backwater sloughs and edgewaters.	None. Habitat lacking; the Project site lacked connectivity to the aquatic habitat this species requires.

California red-legged frog (<i>Rana draytonii</i>)	FT, SSSC	Creeks, ponds, and marshes for breeding; burrows for upland refuge.	None. Habitat lacking; Project site is outside the current known range of this species.
California tiger salamander (<i>Ambystoma californiense</i>)	FT, ST	Vernal pools or seasonal ponds for breeding; small mammal burrows for upland refugia in natural grasslands.	None. Habitat lacking; the Project site is outside the current known range of this species.
Foothill yellow-legged frog – South Sierra DPS ³ (<i>Rana boylei</i>)	FC, SE	Perennial streams and rivers with rocky substrates, and with open, sunny banks may be in forests, chaparral, or woodlands.	None. Habitat lacking; no suitable perennial streams in the survey area.
Limestone salamander (<i>Hydromantes brunus</i>)	ST, FP	Limestone outcrops, caverns, talus, or rock fissures in foothill pine and chaparral along the Merced River and its tributaries.	None. Habitat lacking; the Project site is outside the current known range of this species.
Bald eagle (<i>Haliaeetus leucocephalus</i>)	SE, FP	Large old-growth trees or snags in remote, mixed stands near water.	Moderate. Suitable nest trees were present around Pine Mountain Lake.
Great gray owl ³ (<i>Strix nebulosa</i>)	SE	Meadow edges in mixed conifer forest, red fir forest, or cismontane woodland in Central California.	None. Habitat lacking; no suitable meadows within 500 feet of the Project site.
Least Bell's vireo (<i>Vireo bellii pusillus</i>)	FE, SE	Riparian corridors with a dense, shrubby understory.	None. Habitat lacking; the Project site is outside the current known range of this species.
Fisher – Southern Sierra Nevada DPS (<i>Pekania pennanti</i>)	FE, ST	Large areas of mature, dense forest stands with snags and greater than 50% canopy closure at 4000–9000 feet elevation.	None. The Project site is outside the current known range of this species.

State Species of Special Concern			
Central California roach ³ (<i>Hesperoleucus symmetricus symmetricus</i>)	SSSC	Tributaries of the San Joaquin River south of and including the Cosumnes River.	None. Habitat lacking; no connectivity with the aquatic habitats this species requires.
Northwestern pond turtle ³ (<i>Actinemys marmorata</i>)	SSSC	Ponds, rivers, marshes, streams, and irrigation ditches, usually with aquatic vegetation and woody debris for basking, and adjacent natural upland areas for egg laying.	Low. Rattlesnake Creek, a nearby pond, and the surrounding upland areas provide low-quality habitat for this species.
Burrowing owl (<i>Athene cunicularia</i>)	SSSC	Grassland and upland scrub with friable soil; some agricultural or other developed and disturbed areas with ground squirrel burrows.	None. Habitat lacking; the Project site lacked areas of open grassland or upland scrub large enough to support this species.
California spotted owl ³ (<i>Athene cunicularia</i>)	SSSC	Dense old-growth, multi-layered forest stands with large trees and snags.	None. Habitat lacking; the Project site is disturbed and lacks dense old-growth multi-layered forest.
Pallid bat ³ (<i>Antrozous pallidus</i>)	SSSC	Arid or semi-arid locations in rocky areas and sparsely vegetated grassland near water. Rock crevices, caves, mine shafts, bridges, buildings, and tree hollows for roosting.	None. Habitat lacking; the survey area lacked the arid or semi-arid rocky areas and grassland this species requires.
Spotted bat (<i>Euderma maculatum</i>)	SSSC	Rock crevices, cliffs, and caves for roosting; feeds almost exclusively on moths.	None. Habitat lacking; the survey area lacked the rock crevices, cliffs, and caves this species requires.

Townsend's big-eared bat ³ (<i>Corynorhinus townsendii</i>)	SSSC	Open buildings, caves, or mines for roosting and a variety of habitats including cismontane woodland and low elevation conifer forest for foraging.	None. Habitat lacking; the survey area lacked the open buildings, caves, or mines this species requires.
Western mastiff bat ³ (<i>Eumops perotis californicus</i>)	SSSC	Crevices in face cliffs, tall buildings, and tunnels in open semi-arid habitats.	None. Habitat lacking; the survey area lacked the face cliffs, tall buildings, and tunnels this species requires.
Western red bat ³ (<i>Lasiurus blossevillii</i>)	SSSC	Trees in forest and woodland from sea level to elevations supporting mixed-conifer forest.	Moderate. Suitable roosting trees and foraging areas were within 50 feet of the Project site.
California Rare Plants			
Beaked clarkia (<i>Clarkia rostrata</i>)	1B.3	Oak and pine woodland and Valley grassland at 197–1640 feet elevation.	None. Habitat lacking; the Project site is above the known elevational range of this species.
Big-scale balsamroot (<i>Balsamorhiza macrolepis</i>)	1B.2	Open, grassy, or rocky slopes and valleys in chaparral, cismontane woodland, and Valley and foothill grassland. Sometimes present in serpentine soils.	None. Grassy slopes were present, but habitat on the Project site was disturbed. No serpentine soils were present on the Project site. This perennial species was not detected during reconnaissance survey.
Brownish beaked-rush (<i>Rhynchospora capitellata</i>)	2B.2	Meadows, seeps, and marshes in conifer forest.	None. Habitat lacking; meadows, seeps, and marshes were not present in the survey area.

Congdon's lomatium ³ (<i>Lomatium congdonii</i>)	1B.2	Chaparral and cismontane woodland with serpentine soil.	None. Habitat lacking; no serpentine soils known from the survey area.
Mariposa clarkia ³ (<i>Clarkia biloba ssp. australis</i>)	1B.2	Chaparral and cismontane woodland with serpentine soil.	None. Habitat lacking; no serpentine soils known from the survey area.
Mariposa cryptantha (<i>Cryptantha mariposae</i>)	1B.3	Rocky, serpentine soils in chaparral.	None. Habitat lacking; no serpentine soils known from the survey area.
Mi-Wuk navarretia (<i>Navarretia miwukensis</i>)	1B.2	Meadows and openings in lower montane coniferous forest.	None. Openings in lower montane coniferous forest were present but highly disturbed. No records from within 5 miles of the Project site.
Parry's horkelia (<i>Horkelia parryi</i>)	1B.2	Meadows and stream banks in lone formation and other soils in chaparral and cismontane woodland.	None. Habitat lacking; no lone formation soils known from the survey area. No records from within 5 miles of the Project site.
Rawhide Hill onion ³ (<i>Allium tuolumnense</i>)	1B.2	Serpentine soils in cismontane woodland.	None. Habitat lacking; no serpentine soils known from the survey area.
Red Hills cryptantha ³ (<i>Cryptantha spithamaea</i>)	1B.3	Serpentine soils in chaparral and cismontane woodland.	None. Habitat lacking; no serpentine soils known from the survey area.
Red Hills ragwort (<i>Senecio clevelandii</i> var. <i>heterophyllus</i>)	1B.2	Serpentine seeps in cismontane woodland.	None. Habitat lacking; no serpentine seeps or soils known from the survey area.
Shaggyhair lupine ³ (<i>Lupinus spectabilis</i>)	1B.2	Serpentine soils in chaparral and cismontane woodland.	None. Habitat lacking; no serpentine soils known from the survey area.

Slender-stemmed monkeyflower ³ (<i>Erythranthe filicaulis</i>)	1B.2	Meadows and seeps in cismontane woodland and conifer forest.	None. Habitat lacking; meadows and seeps were not present in the survey area.
Small's southern clarkia (<i>Clarkia australis</i>)	1B.2	Cismontane woodland and low elevation conifer forest between 2625 and 6810 feet elevation.	None. Cismontane woodland and low elevation conifer forest were present but highly disturbed. No records from within 5 miles of the Project site.
Tuolumne button-celery ³ (<i>Eryngium pinnatisectum</i>)	1B.2	Seasonally flooded depressions in cismontane woodland and low elevation conifer forest.	None. Habitat lacking; no seasonally flooded depressions were found in the survey area.
Tuolumne fawn lily ³ (<i>Erythronium tuolumnense</i>)	1B.2	Open woodland and shady canyons in broadleaf upland forest, chaparral, cismontane woodland, and low elevation conifer forest. Affinity to serpentine soil.	None. Habitat lacking; no serpentine soils known from the survey area.
Yellow-lip pansy monkeyflower ³ (<i>Diplacus pulchellus</i>)	1B.2	Vernally wet depressions and seeps in low elevation coniferous forest; often in disturbed areas.	None. Habitat lacking; no depressions or seeps were found in the survey area.

CDFW (2022), CNPS (2022), USFWS (2022).

Status¹	Potential to Occur²
FE = Federally listed Endangered	None: Species or sign not observed; conditions unsuitable for occurrence.
FT = Federally listed Threatened	Low: Neither species nor sign observed; conditions marginal for occurrence.
FP = State Fully Protected	Moderate: Neither species nor sign observed; conditions suitable for occurrence.
FC = Federal Candidate for listing under the FESA	High: Neither species nor sign observed; conditions highly suitable for occurrence.
SE = State listed Endangered	Present: Species or sign observed; conditions suitable for occurrence.
ST = State listed Threatened	
SSSC = State Species of Special Concern	
SC = State Candidate for listing under the CESA	

CNPS California Rare Plant Rank¹:	Threat Ranks¹:
1B – plants rare, threatened, or endangered in California and elsewhere.	0.1 – seriously threatened in California (> 80% of occurrences).
2B – plants rare, threatened, or endangered in California but more common elsewhere.	0.2 – moderately threatened in California (20-80% of occurrences).
3 – plants about which more information is needed.	0.3 – not very threatened in California (<20% of occurrences).
4 – plants have limited distribution in California.	

³Record from within 5 miles of the Project site.

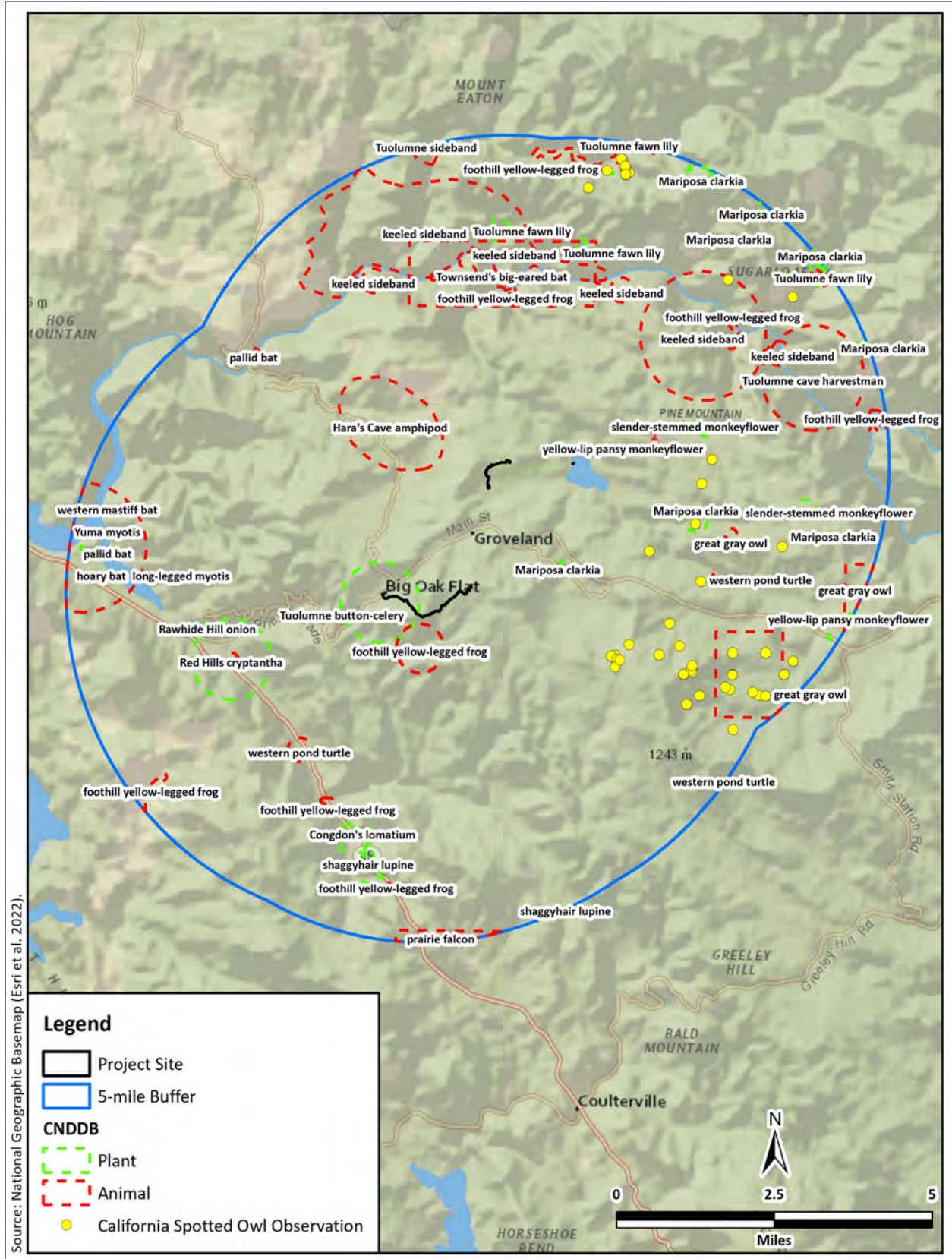


Figure 10. CNDDB occurrence map.

3.2 Reconnaissance Survey

3.2.1 Land Use and Habitats

The Project site consists of developed and disturbed land cover surrounded by oak and pine forest (Figures 11–17). Land uses include commercial, residential, and recreational.

The existing alternate water supply treatment facility is in a paved parking lot surrounded by commercial development (Figure 11). The new alternate water supply treatment and groundwater well site consists of a graveled parking lot and disturbed oak forest (Figures 12 and 13). An ephemeral drainage was along the north and east boundaries of the new alternate water supply treatment and groundwater well site (Figure 13). The new water storage tank and groundwater well site was a flat, graveled area adjacent to a communication tower surrounded by oak and pine forest (Figure 14). The alternate water supply intake was adjacent to a paved parking lot, a maintained lawn, and a reservoir (Figure 15). The proposed pipelines are underneath paved roads surrounded by oak and pine forest (Figure 16). The pipelines cross several unnamed ephemeral drainages and Rattlesnake Creek, an intermittent drainage with herbaceous riparian vegetation (Figure 17).



Figure 11. Photograph of the existing alternate water supply treatment site, looking southeast, showing urban land cover.



Figure 12. Photograph of the new alternate water supply treatment and groundwater well site, looking south, showing urban land cover and oak forest.



Figure 13. Photograph of an ephemeral drainage along the northern border of the new alternate water supply treatment and groundwater well site, looking north.



Figure 14. Photograph of the new water storage tank and groundwater well site, facing north, showing urban land cover surrounded by oak and pine forest.



Figure 15. Photograph of the alternate water supply intake, facing northeast, showing urban land cover and Pine Mountain Lake.



Figure 16. Photograph of the proposed water distribution pipeline along Harper Road, facing northeast showing urban land cover surrounded by oak forest.



Figure 17. Photograph of the proposed water distribution pipeline crossing Rattlesnake Creek, facing southeast, showing urban land cover surrounded by riparian vegetation and oak forest.

3.2.2 Plant and Animal Species Observed

A total of 53 plant species (36 native and 17 nonnative), 36 bird species, and two mammal species were observed during the survey (Table 2).

Table 2. Plant and animal species observed during the reconnaissance survey.

Common Name	Scientific Name	Regulatory Status
Plants		
Family Adoxaceae		
Blue elderberry	<i>Sambucus nigra ssp. caerulea</i>	Native
Family Anacardiaceae		
Poison oak	<i>Toxicodendron diversilobum</i>	Native
Family Araceae		
Duckweed	<i>Lemna sp.</i>	Native
Family Asteraceae		
Canada horseweed	<i>Erigeron canadensis</i>	Native
Common groundsel	<i>Senecio vulgaris</i>	Nonnative
Gumweed	<i>Grindelia camporum</i>	Native
Ladies' tobacco	<i>Pseudognaphalium californicum</i>	Native
Rough cocklebur	<i>Xanthium strumarium</i>	Native
Rubber rabbitbrush	<i>Ericameria nauseosa</i>	Native
Wire lettuce	<i>Stephanomeria pauciflora</i>	Native
Yellow star thistle	<i>Centaurea solstitialis</i>	Nonnative
Family Betulaceae		
White alder	<i>Alnus rhombifolia</i>	Native
Family Brassicaceae		
Fringe pod	<i>Thysanocarpus curvipes</i>	Native
Short pod mustard	<i>Hirschfeldia incana</i>	Nonnative
Family Caprifoliaceae		
Chaparral honeysuckle	<i>Lonicera interrupta</i>	Native
Family Cupressaceae		
Incense cedar	<i>Calocedrus decurrens</i>	Native
Family Cyperaceae		
Sedge	<i>Carex sp.</i>	Native
Family Ericaceae		
White leaf manzanita	<i>Arctostaphylos manzanita</i>	Native
Family Euphorbiaceae		
Turkey-mullein	<i>Croton setiger</i>	Native
Family Fabaceae		
California hemp	<i>Hoita macrostachya</i>	Native
Deerweed	<i>Acmispon glaber</i>	Native

Yellow sweetclover	<i>Melilotus indicus</i>	Nonnative
Family Fagaceae		
Black oak	<i>Quercus kelloggii</i>	Native
Blue oak	<i>Quercus douglasii</i>	Native
Canyon live oak	<i>Quercus chrysolepis</i>	Native
Interior live oak	<i>Quercus wislizeni</i>	Native
Valley oak	<i>Quercus lobata</i>	Native
Family Geraniaceae		
Cutleaf geranium	<i>Geranium dissectum</i>	Nonnative
Family Iridaceae		
Hartweg's iris	<i>Iris hartwegii</i>	Native
Family Lythraceae		
Hyssop loosestrife	<i>Lythrum hyssopifolia</i>	Nonnative
Family Namaceae		
Yerba santa	<i>Eriodictyon californicum</i>	Native
Family Onagraceae		
Panicled willowherb	<i>Epilobium brachycarpum</i>	Native
Family Pinaceae		
California foothill pine	<i>Pinus sabiniana</i>	Native
Ponderosa pine	<i>Pinus ponderosa</i>	Native
Family Plantaginaceae		
English plantain	<i>Plantago lanceolata</i>	Nonnative
Family Poaceae		
Annual rabbitsfoot grass	<i>Polypogon monspeliensis</i>	Nonnative
Deergrass	<i>Muhlenbergia rigens</i>	Native
Grass	<i>Poa</i> sp.	Nonnative
Ripgut brome	<i>Bromus diandrus</i>	Nonnative
Rye brome	<i>Bromus secalinus</i>	Nonnative
Slender wild oat	<i>Avena barbata</i>	Nonnative
Soft chess	<i>Bromus hordeaceus</i>	Nonnative
Family Polygonaceae		
California knotweed	<i>Polygonum californicum</i>	Native
Curly dock	<i>Rumex crispus</i>	Nonnative
Naked buckwheat	<i>Eriogonum nudum</i>	Native
Prostrate knotweed	<i>Polygonum aviculare</i>	Nonnative
Family Rhamnaceae		
Buck brush	<i>Ceanothus cuneatus</i>	Native
Deer brush	<i>Ceanothus integerrimus</i>	Native
Family Rosaceae		
Himalayan blackberry	<i>Rubus armeniacus</i>	Nonnative
Toyon	<i>Heteromeles arbutifolia</i>	Native
Family Salicaceae		

Fremont cottonwood	<i>Populus fremontii</i>	Native
Red willow	<i>Salix laevigata</i>	Native
Family Scrophulariaceae		
Woolly mullein	<i>Verbascum thapsus</i>	Nonnative
Birds		
Family Accipitridae		
Red-shouldered hawk	<i>Buteo lineatus</i>	MBTA, CFGC
Red-tailed hawk	<i>Buteo jamaicensis</i>	MBTA, CFGC
Family Anatidae		
Canada goose	<i>Branta canadensis</i>	MBTA, CFGC
Common merganser	<i>Mergus merganser</i>	MBTA, CFGC
Mallard	<i>Anas platyrhynchos</i>	MBTA, CFGC
Family Bombycillidae		
Cedar waxwing	<i>Bombycilla cedrorum</i>	MBTA, CFGC
Family Certhiidae		
Brown creeper	<i>Certhia americana</i>	MBTA, CFGC
Family Charadriidae		
Killdeer	<i>Charadrius vociferus</i>	MBTA, CFGC
Family Columbidae		
Eurasian collard-dove	<i>Streptopelia decaocto</i>	Nonnative
Family Corvidae		
California scrub-jay	<i>Aphelocoma californica</i>	MBTA, CFGC
Common raven	<i>Corvus corax</i>	MBTA, CFGC
Steller's jay	<i>Cyanocitta stelleri</i>	MBTA, CFGC
Family Fringillidae		
Purple finch	<i>Haemorhous purpureus</i>	MBTA, CFGC
Family Icteridae		
Brewer's blackbird	<i>Euphagus cyanocephalus</i>	MBTA, CFGC
Red-winged blackbird	<i>Agelaius phoeniceus</i>	MBTA, CFGC
Family Odontophoridae		
California quail	<i>Callipepla californica</i>	MBTA, CFGC
Family Paridae		
Mountain chickadee	<i>Poecile gambeli</i>	MBTA, CFGC
Oak titmouse	<i>Baeolophus inornatus</i>	MBTA, CFGC
Family Parulidae		
Yellow-rumped warbler	<i>Setophaga coronata</i>	MBTA, CFGC
Family Passerellidae		
California towhee	<i>Melospiza crissalis</i>	MBTA, CFGC
Dark-eyed junco	<i>Junco hyemalis</i>	MBTA, CFGC
Golden-crowned sparrow	<i>Zonotrichia atricapilla</i>	MBTA, CFGC
Spotted towhee	<i>Pipilo maculatus</i>	MBTA, CFGC
Family Phalacrocoracidae		

Double-crested cormorant	<i>Nannopterum auritum</i>	MBTA, CFGC
Family Picidae		
Acorn woodpecker	<i>Melanerpes formicivorus</i>	MBTA, CFGC
Northern flicker	<i>Colaptes auratus</i>	MBTA, CFGC
Nuttall's woodpecker	<i>Picoides nuttallii</i>	MBTA, CFGC
Family Podicipedidae		
Pied-billed grebe	<i>Podilymbus podiceps</i>	MBTA, CFGC
Western grebe	<i>Aechmophorus occidentalis</i>	MBTA, CFGC
Family Rallidae		
American coot	<i>Fulica americana</i>	MBTA, CFGC
Family Regulidae		
Ruby-crowned kinglet	<i>Regulus calendula</i>	MBTA, CFGC
Family Trochilidae		
Anna's hummingbird	<i>Calypte anna</i>	MBTA, CFGC
Family Turdidae		
American robin	<i>Turdus migratorius</i>	MBTA, CFGC
Hermit thrush	<i>Catharus guttatus</i>	MBTA, CFGC
Western bluebird	<i>Sialia mexicana</i>	MBTA, CFGC
Family Tyrannidae		
Black phoebe	<i>Sayornis nigricans</i>	MBTA, CFGC
Mammals		
Family Cervidae		
California mule deer	<i>Odocoileus hemionus californicus</i>	--
Family Sciuridae		
Western gray squirrel	<i>Sciurus griseus</i>	--

MBTA = Protected under the Migratory Bird Treaty Act (16 USC § 703 et seq.); CFGC = Protected under the California Fish and Game Code (FGC §§ 3503 and 3513).

3.2.3 Bald Eagle and Golden Eagle

The Project site and surrounding area contained foraging and nesting habitat for bald eagle and foraging habitat for golden eagle.

3.2.4 Nesting Birds and the Migratory Bird Treaty Act

Migratory birds could nest on or near the Project site. Bird species that may nest on or near the property include, but are not limited to, California scrub-jay (*Aphelocoma californica*), red-shouldered hawk (*Buteo lineatus*), acorn woodpecker (*Melanerpes formicivorus*), and spotted towhee (*Pipilo maculatus*).

3.2.5 Regulated Habitats

The Project site was within 50 feet of several unnamed ephemeral streams and Rattlesnake Creek, an intermittent stream (Figures 3 and 4). As streams in California, they are under the regulatory jurisdiction of the CDFW; as potential surface waters in California, they may be under the regulatory jurisdiction of the SWRCB; and as a potential tributary of the Tuolumne River, a navigable water of the United States, they may be under the regulatory jurisdiction of the USACE.

According to the National Wild and Scenic Rivers System, the nearest designated wild and scenic river is the Tuolumne River approximately 2.7 miles north of the Project site (USFWS 2022c).

No marine or estuarine fishery resources or migratory routes to and from anadromous fish spawning grounds were present in the survey area. The streams in the survey area do not contain the perennial or prolonged flows necessary to support fish. In addition, no EFH, defined by the Magnuson-Stevens Act as those resources necessary for fish spawning, breeding, feeding, or growth to maturity, were present in the survey area.

The Project site is not in a flood plain (FEMA 2022). The nearest flood plain limit is Priest Reservoir approximately 1.4 miles southwest of the Project site.

3.3 Special-Status Species

The following special-status species could occur on or near the Project site based on the presence of habitat:

3.3.1 Northwestern Pond Turtle

Northwestern pond turtle (family Emydidae) is one of only two California native freshwater turtles. This species is long-lived, diurnal, and aquatic (Nafis 2022). It occurs in ponds, lakes, rivers, creeks, marshes, and irrigation ditches and requires exposed banks, logs, rocks, or cattail mats for basking (Nafis 2022). Commercial harvesting beginning in the 19th century, wetland destruction and degradation in the early 20th century, and introduction of nonnative species including other turtle species and bullfrogs are the primary contributors to population declines (Nafis 2020). Mating occurs in April and May, after which females travel onto land to dig a nest, usually along stream or pond banks (Nafis 2022).

There are three species occurrence records of northwestern pond turtle from within 5 miles of the Project site (CDFW 2022). The closest CNDDDB occurrence is from 1988 at Moccasin Creek, approximately 2.8 miles southwest of the Project site. Rattlesnake Creek and a nearby pond contain sufficient water and emergent vegetation to provide aquatic habitat for northwestern pond turtle. The disturbed oak forest within 300 feet of Rattlesnake Creek and the nearby pond provide potential upland nesting habitat. Due to poor habitat quality, the potential for this species to occur is low.

3.3.2 Bald Eagle

Bald eagle was perilously close to extirpation in the contiguous United States three decades ago, but populations have since recovered to more than 300,000 individuals (USFWS 2020). Bald eagle was removed from the FESA in 2007 but remains state listed as endangered and fully protected and is protected under the Bald and Golden Eagle Protection Act (CDFW 2022). Bald eagles overwinter throughout most of California; breeding territories are mainly in mountain and foothill forests and woodlands near reservoirs, lakes, and rivers (Zeiner et al. 1988–1990). Bald eagles use large, old-growth trees or snags for perching, roosting, and nesting. They are opportunistic foragers and consume a variety of fish, birds, and mammals depending on prey availability (USFWS 2022d). Bald eagles breed February–July. Eggs are incubated for 34–36 days, and young fledge 58–96 days after hatching (Buehler 2000). Bald eagles typically nest in remote areas and are sensitive to human disturbance during nesting (USFWS 2022d).

There are no CNDDDB occurrence records of bald eagle from within 5 miles of the Project site (CDFW 2022). However, Pine Mountain Lake and the surrounding forest provide nesting and foraging habitat for bald eagle. In addition, we detected an active bald eagle nest along the shoreline of Pine Mountain Lake during a June 2022 nesting bird survey for a different project. The nest was approximately 0.5 miles southeast of the alternate water supply intake. Therefore, the species has a moderate potential to occur on the Project site.

3.3.3 Western Red Bat

Locally common in some areas of California, western red bat occurs west of the Sierra Nevada/Cascade crest from Shasta County to the Mexican border (Zeiner et al. 1988–1990). Western red bat occupies a wide variety of habitats including grasslands, shrublands, open woodlands and forests, croplands, and orchards (Zeiner et al. 1988–1990). It roosts in trees in edge habitats and riparian areas adjacent to streams, fields, or urban areas (Solick et al. 2020). Red bat feeds on a variety of insects including moths, crickets, beetles, and cicadas (Shump and Shump 1982).

There is one species occurrence record of western red bat from within 5 miles of the Project site: a 1999 CNDDDB occurrence near Moccasin, approximately 2.6 miles southwest of the Project site (CDFW 2022). The survey area contains tall, mature trees in edge habitat and riparian corridors that provide potential roosting habitat for western red bat. The oak and pine forests in and adjacent to the Project site provide potential foraging habitat. Therefore, the species has a moderate potential to occur on the Project site.

4.0 Environmental Effects

4.1 Effects Determinations

4.1.1 Critical Habitat

We conclude the Project will have **no effect** on critical habitat as no critical habitat has been designated or proposed in the survey area.

4.1.2 Special-Status Species

We conclude the Project **may affect but is not likely to adversely affect** the state listed as endangered and fully protected bald eagle, the state species of special concern northwestern pond turtle, and the state species of special concern western red bat. The Project is not expected to affect any other special-status species due to the lack of habitat or known occurrence records for those species near the Project site.

4.1.3 Migratory Birds

We conclude the Project **may affect but is not likely to adversely affect** nesting migratory birds.

4.1.4 Regulated Habitats

We conclude the Project **may affect and is likely to adversely affect** several regulated habitats. These habitats consist of Rattlesnake Creek, an intermittent stream, and several unnamed ephemeral streams that may be under the regulatory jurisdiction of the USACE, the RWQCB, and the CDFW. As such, Clean Water Act Section 404 permits and 401 certifications as well as California Fish and Game Code Section 1602 notifications may be required if Project activities impact these regulated habitats. However, the project will have **no effect** on state or federally protected wetlands or other regulated habitats under CEQA purview as no such habitats were found in the survey area.

4.2 Significance Determinations

This Project, which will result in temporary impacts to developed and disturbed land, will not: (1) substantially reduce the habitat of a fish or wildlife species (criterion a) as no such habitat is present on the Project site; (2) cause a fish or wildlife population to drop below self-sustaining levels (criterion b) as no such potentially vulnerable population is known from the area; (3) threaten to eliminate a plant or animal community (criterion c) as no such potentially vulnerable communities are known from the area; (4) substantially reduce the number or restrict the range of a rare or endangered plant or animal (criterion d) as no such potentially vulnerable species are

known from the area; (5) 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 CDFW or USFWS (criterion f) as any effects to riparian habitat along Rattlesnake Creek are expected to be minor to negligible and no other sensitive natural community was present in the survey area; (6) 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 (criterion g) as no impacts to wetlands will occur; (7) conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (criterion i) as no trees or biologically sensitive areas will be impacted; or (8) conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or state habitat conservation plan (criterion j) as no such plan has been adopted. Thus, these significance criteria are not analyzed further.

The remaining statutorily defined criteria provided the framework for Criteria BIO1 and BIO2 below. These criteria were used to assess the impacts to biological resources stemming from the Project and provide the basis for determinations of significance:

- Criterion BIO1: 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 CDFW or USFWS (significance criterion e).
- Criterion BIO2: 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 (significance criterion h).

4.2.1 Direct and Indirect Effects

4.2.1.1 Potential Effect #1: Have a Substantial Effect on Any Special-Status Species (Criterion BIO1)

The Project could adversely affect, either directly or through habitat modifications, three special-status animals that occur or may occur on or near the Project site. Construction activities such as excavating, trenching, or using other heavy equipment that disturbs or harms a special-status species or substantially modifies its habitat could constitute a significant impact. We recommend that Mitigation Measures BIO1–BIO3 (below) be included in the conditions of approval to reduce the potential impact to a less-than-significant level.

Mitigation Measure BIO1. Protect northwestern pond turtle.

1. A pre-construction clearance survey shall be conducted by a qualified biologist to ensure that northwestern pond turtle will not be impacted during Project construction. The pre-construction clearance survey shall be conducted no more than 14 days prior to the start of construction activities within 300 feet of potential aquatic habitat (Rattlesnake Creek and adjacent pond) for northwestern pond turtle. During this survey, the qualified biologist shall search all aquatic habitat for turtles and all potential nesting habitat on the Project site for active turtle nests. If a turtle is found, it will be allowed to leave the area on its own. If an active turtle nest is found, the qualified biologist shall determine the extent of a construction-free buffer to be established and maintained around the nest for the duration of the nesting cycle. The biologist shall then work with construction personnel to install wildlife exclusion fencing along the buffer. This fencing should be a minimum of 36 inches tall and toed-in 6 inches below ground prior to construction activities. If fencing cannot be toed-in, the bottom of the fence will be weighted down with a continuous line of long, narrow sand bags or similar, to ensure there are no gaps under the fencing where wildlife could enter. One-way exit funnels directed away from construction activities will be installed to allow turtles and other small wildlife to exit the fenced enclosure.

Mitigation Measure BIO2. Protect nesting bald eagle.

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through July.
2. If it is not possible to schedule construction between August and January, pre-construction surveys for nesting bald eagles shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates (large trees) within 0.5 miles of the impact areas at Pine Mountain Lake for nests. If an active nest is found close enough to the construction area to be disturbed by Project activities, the qualified biologist in consultation with the CDFW shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting eagles, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

Mitigation Measure BIO3. Protect western red bat.

1. To the extent practicable, construction shall be scheduled to avoid the birthing and pupping season for western red bat, which extends from May through August.
2. If it is not possible to schedule construction between September and April, pre-construction surveys for roosting bats shall be conducted by a qualified biologist to ensure that no active maternal colonies will be disturbed during Project implementation. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential colony substrates in and immediately adjacent to the impact areas for maternity roosts. If an active maternity roost is found close enough to the construction area to be disturbed by work activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the colony. If work cannot proceed without disturbing the colony, work may need to be halted or redirected to other areas until young are able to fly or the colony has otherwise failed for non-construction related reasons.

4.2.1.2 Potential Effect #2: Interfere Substantially with Native Wildlife Movements, Corridors, or Nursery Sites (Criterion BIO2)

The Project has the potential to impede the use of nursery sites for native birds protected under the MBTA and California Fish and Game Code. Migratory birds are expected to nest on and near the Project site. Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Disturbance that causes nest abandonment or loss of reproductive effort can be considered take under the MBTA and California Fish and Game Code. Loss of fertile eggs or nesting birds, or any activities resulting in nest abandonment, could constitute a significant effect if the species is particularly rare in the region. Construction activities such as excavating, trenching, and grading that disturb a nesting bird in the Project site or immediately adjacent to the construction zone could constitute a significant effect. We recommend that the mitigation measure BIO4 (below) be included in the conditions of approval to reduce the potential effect to a less-than-significant level.

Mitigation Measure BIO4. Protect nesting birds.

1. To the extent practicable, construction shall be scheduled to avoid the nesting season, which extends from February through August.
2. If it is not possible to schedule construction between September and January, pre-construction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no active nests will be disturbed during the implementation of the Project. A pre-construction survey shall be conducted no more than 14 days prior to the initiation of construction activities. During this survey, the qualified biologist shall inspect all potential nest substrates in and immediately adjacent to

the impact areas. If an active nest is found close enough to the construction area to be disturbed by these activities, the qualified biologist shall determine the extent of a construction-free buffer to be established around the nest. If work cannot proceed without disturbing the nesting birds, work may need to be halted or redirected to other areas until nesting and fledging are completed or the nest has otherwise failed for non-construction related reasons.

4.2.2 Cumulative Effects

The Project will involve making improvements to drinking water infrastructure at various locations in Big Oak Flat, Groveland, and the Pine Mountain Lake subdivision. Although all land in and immediately adjacent to the Project site was previously disturbed, the Project site provides potential habitat for bald eagle, northwestern pond turtle, western red bat, and migratory birds. However, implementing Mitigation Measures BIO1–BIO4 would reduce any contribution to cumulative impacts on biological resources to a less-than-significant level.

4.2.3 Unavoidable Significant Adverse Effects

No unavoidable significant adverse effects on biological resources would occur from implementing the Project.

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Appendix A. USFWS list of threatened and endangered species.



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:
Project Code: 2023-0012222
Project Name: Groveland CSD Drought Improvements Project

November 03, 2022

Subject: List of threatened and endangered species that may occur in your proposed project location 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, 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 U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

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>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts see <https://www.fws.gov/birds/policies-and-regulations.php>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures see <https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds.php>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/birds/policies-and-regulations/executive-orders/e0-13186.php>.

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 Code 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

Project Code: 2023-0012222
Project Name: Groveland CSD Drought Improvements Project
Project Type: Water Supply Facility - New Constr
Project Description: The Project will involve three components: (1) installing a hard rock groundwater well adjacent to an existing storage tank (Tank 5), (2) installing a 140,000-gallon storage tank next to Tank 5 and 5500 linear feet of 8-inch water pipeline along Harper Road from Tank 5 to Big Oak Flat, and (3) relocating a water treatment plant from 12756 Mueller Drive to 12528 Flint Drive.

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@37.8544713,-120.20153052495118,14z>



Counties: Tuolumne County, California

Endangered Species Act Species

There is a total of 6 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 Fisheries¹, 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
Fisher <i>Pekania pennanti</i> Population: SSN DPS There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3651	Endangered

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2891	Threatened
California Tiger Salamander <i>Ambystoma californiense</i> Population: U.S.A. (Central CA DPS) There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2076	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

Flowering Plants

NAME	STATUS
Layne's Butterweed <i>Senecio layneae</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4062	Threatened

Critical habitats

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

IPaC User Contact Information

Agency: Colibri Ecological Services
Name: Ryan Slezak
Address: 9493 N Ft Washington Rd
City: Fresno
State: CA
Zip: 93730
Email: rslezak@colibri-ecology.com
Phone: 5592426178

Appendix B. CNDDDB occurrence records.



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



Query Criteria: Quad< IS > (Duckwall Mtn. (3712081)< OR > Tuolumne (3712082)< OR > Buckhorn Peak (3712061)< OR > Jawbone Ridge (3712071)< OR > Groveland (3712072)< OR > Coulterville (3712062)< OR > Standard (3712083)< OR > Moccasin (3712073)< OR > Penon Blanco Peak (3712063))

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.
<i>Allium tuolumnense</i> Rawhide Hill onion	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	840 1,250	25 S:4	0	1	1	0	0	2	0	4	4	0	0
<i>Antrozous pallidus</i> pallid bat	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	810 2,750	420 S:5	0	0	0	0	0	5	5	0	5	0	0
<i>Athene cunicularia</i> 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	1,700 1,700	2011 S:1	0	0	0	1	0	0	0	1	1	0	0
<i>Balsamorhiza macrolepis</i> big-scale balsamroot	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	2,300 2,900	51 S:4	0	0	0	0	0	4	1	3	4	0	0
<i>Banksula tuolumne</i> Tuolumne cave harvestman	G1 S1	None None		3,100 3,100	1 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Bombus crotchii</i> Crotch bumble bee	G2 S1S2	None Candidate Endangered	IUCN_EN-Endangered	3,000 3,000	437 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Clarkia australis</i> Small's southern clarkia	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	3,000 5,000	41 S:9	0	1	2	0	0	6	6	3	9	0	0
<i>Clarkia biloba ssp. australis</i> Mariposa clarkia	G4G5T3 S3	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	800 4,850	119 S:71	3	15	3	1	0	49	4	67	71	0	0



Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database



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.
<i>Clarkia rostrata</i> beaked clarkia	G2G3 S2S3	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley	900 2,000	74 S:11	0	1	0	0	0	10	1	10	11	0	0
<i>Corynorhinus townsendii</i> Townsend's big-eared bat	G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	1,380 3,720	635 S:6	0	0	0	0	0	6	5	1	6	0	0
<i>Cryptantha mariposae</i> Mariposa cryptantha	G2G3 S2S3	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive	1,500 1,500	9 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Cryptantha spithamea</i> Red Hills cryptantha	G2 S2	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive	1,750 1,750	6 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Desmocerus californicus dimorphus</i> valley elderberry longhorn beetle	G3T2T3 S3	Threatened None		1,650 2,850	271 S:3	0	2	1	0	0	0	2	1	3	0	0
<i>Diplacus pulchellus</i> yellow-lip pansy monkeyflower	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	2,200 3,970	78 S:9	0	1	1	0	0	7	5	4	9	0	0
<i>Emys marmorata</i> western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	1,060 3,152	1404 S:5	0	1	0	0	0	4	3	2	5	0	0
<i>Eryngium pinnatisectum</i> Tuolumne button-celery	G2 S2	None None	Rare Plant Rank - 1B.2	2,400 3,200	30 S:4	0	0	0	0	0	4	4	0	4	0	0
<i>Erythranthe filicaulis</i> slender-stemmed monkeyflower	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	2,045 3,250	49 S:10	1	3	1	0	0	5	9	1	10	0	0
<i>Erythronium tuolumnense</i> Tuolumne fawn lily	G2G3 S2S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	1,600 3,200	35 S:10	2	2	0	0	0	6	7	3	10	0	0



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Euderma maculatum</i> spotted bat	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	2,700 2,700	68 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Eumops perotis californicus</i> western mastiff bat	G4G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern	850 1,550	296 S:4	0	0	0	0	0	4	4	0	4	0	0
<i>Falco mexicanus</i> prairie falcon	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	1,100 1,100	451 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Fritillaria agrestis</i> stinkbells	G3 S3	None None	Rare Plant Rank - 4.2	940 3,000	32 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Haliaeetus leucocephalus</i> bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive	700 700	332 S:1	1	0	0	0	0	0	0	1	1	0	0
<i>Hesperoleucus symmetricus symmetricus</i> central California roach	GNRT3 S3	None None	CDFW_SSC-Species of Special Concern	900 2,750	8 S:5	0	2	2	1	0	0	5	0	5	0	0
<i>Horkelia parryi</i> Parry's horkelia	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive USFS_S-Sensitive	1,500 3,300	44 S:4	0	1	0	0	0	3	3	1	4	0	0
<i>Hydromantes brunus</i> limestone salamander	G2G3 S2S3	None Threatened	BLM_S-Sensitive CDFW_FP-Fully Protected IUCN_VU-Vulnerable USFS_S-Sensitive	1,180 3,275	21 S:6	0	0	0	0	0	6	3	3	6	0	0
<i>Lasionycteris noctivagans</i> silver-haired bat	G3G4 S3S4	None None	IUCN_LC-Least Concern	1,550 1,550	139 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Lasiurus cinereus</i> hoary bat	G3G4 S4	None None	IUCN_LC-Least Concern	850 3,450	238 S:6	0	0	0	0	0	6	6	0	6	0	0
<i>Lasiurus frantzii</i> western red bat	G4 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	850 3,450	128 S:2	0	0	0	0	0	2	2	0	2	0	0



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Lomatium congdonii</i> Congdon's lomatium	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,500 1,600	20 S:2	0	1	0	0	0	1	1	1	2	0	0
<i>Lupinus spectabilis</i> shaggyhair lupine	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,425 2,500	24 S:16	1	8	2	0	1	4	9	7	15	1	0
<i>Margaritifera falcata</i> western pearlshell	G4G5 S1S2	None None	IUCN_NT-Near Threatened	2,800 2,850	78 S:3	0	0	0	0	0	3	0	3	3	0	0
<i>Monadenia circumcarinata</i> keeled sideband	G3 S3	None None	BLM_S-Sensitive IUCN_VU-Vulnerable	1,500 2,500	6 S:6	0	0	0	0	0	6	5	1	6	0	0
<i>Monadenia tuolumneana</i> Tuolumne sideband	G1 S1	None None	BLM_S-Sensitive	1,650 2,300	2 S:2	0	0	0	0	0	2	1	1	2	0	0
<i>Monadenia yosemitensis</i> Yosemite sideband	G1 S1S2	None None		1,390 1,390	7 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Myotis evotis</i> long-eared myotis	G5 S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern	3,720 3,720	139 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Myotis thysanodes</i> fringed myotis	G4 S3	None None	BLM_S-Sensitive IUCN_LC-Least Concern USFS_S-Sensitive	1,550 3,720	86 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Myotis volans</i> long-legged myotis	G4G5 S3	None None	IUCN_LC-Least Concern		117 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Myotis yumanensis</i> Yuma myotis	G5 S4	None None	BLM_S-Sensitive IUCN_LC-Least Concern	850 2,750	265 S:4	0	0	0	0	0	4	4	0	4	0	0
<i>Navarretia miwukensis</i> Mi-Wuk navarretia	G1G2 S1S2	None None	Rare Plant Rank - 1B.2	3,970 3,970	12 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Packera layneae</i> Layne's ragwort	G2 S2	Threatened Rare	Rare Plant Rank - 1B.2 SB_CalBG/RSABG- California/Rancho Santa Ana Botanic Garden SB_UCBG-UC Botanical Garden at Berkeley SB_UCSC-UC Santa Cruz	815 1,650	48 S:2	0	1	0	0	0	1	1	1	2	0	0



Summary Table Report
California Department of Fish and Wildlife
California Natural Diversity Database



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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
<i>Rana boylei pop. 5</i> foothill yellow-legged frog - south Sierra DPS	G3T2 S2	Proposed Endangered Endangered	BLM_S-Sensitive USFS_S-Sensitive	822 3,800	271 S:40	1	10	5	0	6	18	10	30	34	1	5
<i>Rhynchospora capitellata</i> brownish beaked-rush	G5 S1	None None	Rare Plant Rank - 2B.2 IUCN_LC-Least Concern	3,010 4,088	25 S:2	1	0	0	0	0	1	1	1	2	0	0
<i>Senecio clevelandii var. heterophyllus</i> Red Hills ragwort	G4?T2Q S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive	1,200 1,200	12 S:1	0	1	0	0	0	0	1	0	1	0	0
<i>Strix nebulosa</i> great gray owl	G5 S1	None Endangered	CDF_S-Sensitive IUCN_LC-Least Concern USFS_S-Sensitive	2,825 3,200	79 S:4	0	0	1	0	0	3	4	0	4	0	0
<i>Stygobromus harai</i> Hara's Cave amphipod	G1G2 S1S2	None None	IUCN_VU-Vulnerable	2,350 2,350	3 S:1	0	0	0	0	0	1	1	0	1	0	0
<i>Stygobromus wengerorum</i> Wengerors' Cave amphipod	G1 S1	None None	IUCN_VU-Vulnerable	2,400 2,900	2 S:2	0	0	0	0	0	2	2	0	2	0	0
<i>Vireo bellii pusillus</i> least Bell's vireo	G5T2 S2	Endangered Endangered	NABCI_YWL-Yellow Watch List	840 840	504 S:1	0	0	0	0	1	0	1	0	0	0	1

Appendix C. CNPS plant list.

CNPS Rare Plant Inventory



Search Results

37 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [3712081:3712082:3712061:3712071:3712072:3712062:3712083:3712073:3712063]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK
<u><i>Allium sanbornii</i> var. <i>congdonii</i></u>	Congdon's onion	Alliaceae	perennial bulbiferous herb	Apr-Jul	None	None	G4T3	S3	4.3
<u><i>Allium tuolumnense</i></u>	Rawhide Hill onion	Alliaceae	perennial bulbiferous herb	Mar-May	None	None	G2	S2	1B.2
<u><i>Balsamorhiza macrolepis</i></u>	big-scale balsamroot	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2
<u><i>Calandrinia breweri</i></u>	Brewer's calandrinia	Montiaceae	annual herb	(Jan)Mar-Jun	None	None	G4	S4	4.2
<u><i>Ceanothus fresnensis</i></u>	Fresno ceanothus	Rhamnaceae	perennial evergreen shrub	(Apr)May-Jul	None	None	G4	S4	4.3
<u><i>Clarkia australis</i></u>	Small's southern clarkia	Onagraceae	annual herb	May-Aug	None	None	G2	S2	1B.2
<u><i>Clarkia biloba</i> ssp. <i>australis</i></u>	Mariposa clarkia	Onagraceae	annual herb	Apr-Jul	None	None	G4G5T3	S3	1B.2
<u><i>Clarkia rostrata</i></u>	beaked clarkia	Onagraceae	annual herb	Apr-May	None	None	G2G3	S2S3	1B.3
<u><i>Clarkia virgata</i></u>	Sierra clarkia	Onagraceae	annual herb	May-Aug	None	None	G3	S3	4.3
<u><i>Claytonia parviflora</i> ssp. <i>grandiflora</i></u>	streambank spring beauty	Montiaceae	annual herb	Feb-May	None	None	G5T3	S3	4.2
<u><i>Cryptantha mariposae</i></u>	Mariposa cryptantha	Boraginaceae	annual herb	Apr-Jun	None	None	G2G3	S2S3	1B.3
<u><i>Cryptantha spithamaea</i></u>	Red Hills cryptantha	Boraginaceae	annual herb	Apr-May	None	None	G2	S2	1B.3
<u><i>Cypripedium montanum</i></u>	mountain lady's-slipper	Orchidaceae	perennial rhizomatous herb	Mar-Aug	None	None	G4G5	S4	4.2
<u><i>Delphinium hansenii</i> ssp. <i>ewanianum</i></u>	Ewan's larkspur	Ranunculaceae	perennial herb	Mar-May	None	None	G4T3	S3	4.2
<u><i>Diplacus pulchellus</i></u>	yellow-lip pansy monkeyflower	Phrymaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2
<u><i>Eriogonum tripodum</i></u>	tripod buckwheat	Polygonaceae	perennial deciduous shrub	May-Jul	None	None	G4	S4	4.2
<u><i>Eriophyllum confertiflorum</i> var. <i>tanacetiflorum</i></u>	tansy-flowered woolly sunflower	Asteraceae	perennial shrub	May-Jul	None	None	G5T2?Q	S2?	4.3
<u><i>Eryngium pinnatisectum</i></u>	Tuolumne button-celery	Apiaceae	annual/perennial herb	May-Aug	None	None	G2	S2	1B.2
<u><i>Erythranthe filicaulis</i></u>	slender-stemmed monkeyflower	Phrymaceae	annual herb	Apr-Aug	None	None	G2	S2	1B.2

<u><i>Erythranthe grayi</i></u>	Gray's monkeyflower	Phrymaceae	annual herb	May-Jul	None	None	G2G3Q	S2S3	4.3
<u><i>Erythranthe inconspicua</i></u>	small-flowered monkeyflower	Phrymaceae	annual herb	May-Jun	None	None	G4	S4	4.3
<u><i>Erythronium tuolumnense</i></u>	Tuolumne fawn lily	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G2G3	S2S3	1B.2
<u><i>Fritillaria agrestis</i></u>	stinkbells	Liliaceae	perennial bulbiferous herb	Mar-Jun	None	None	G3	S3	4.2
<u><i>Githopsis pulchella</i> ssp. <i>serpentinicola</i></u>	serpentine bluecup	Campanulaceae	annual herb	May-Jun	None	None	G4T3	S3	4.3
<u><i>Horkelia parryi</i></u>	Parry's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	G2	S2	1B.2
<u><i>Jepsonia heterandra</i></u>	foothill jepsonia	Saxifragaceae	perennial herb	Aug-Dec	None	None	G3	S3	4.3
<u><i>Lessingia hololeuca</i></u>	woolly-headed lessingia	Asteraceae	annual herb	Jun-Oct	None	None	G2G3	S2S3	3
<u><i>Lomatium congdonii</i></u>	Congdon's lomatium	Apiaceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2
<u><i>Lupinus spectabilis</i></u>	shaggyhair lupine	Fabaceae	annual herb	Apr-May	None	None	G2	S2	1B.2
<u><i>Mielichhoferia elongata</i></u>	elongate copper moss	Mielichhoferiaceae	moss		None	None	G5	S3S4	4.3
<u><i>Navarretia miwukensis</i></u>	Mi-Wuk navarretia	Polemoniaceae	annual herb	May-Jun(Jul)	None	None	G1G2	S1S2	1B.2
<u><i>Packera layneae</i></u>	Layne's ragwort	Asteraceae	perennial herb	Apr-Aug	FT	CR	G2	S2	1B.2
<u><i>Peltigera gowardii</i></u>	western waterfan lichen	Peltigeraceae	foliose lichen (aquatic)		None	None	G4?	S3	4.2
<u><i>Perideridia bacigalupii</i></u>	Bacigalupi's yampah	Apiaceae	perennial herb	Jun-Aug	None	None	G3	S3	4.2
<u><i>Rhynchospora capitellata</i></u>	brownish beaked-rush	Cyperaceae	perennial herb	Jul-Aug	None	None	G5	S1	2B.2
<u><i>Senecio clevelandii</i> var. <i>heterophyllus</i></u>	Red Hills ragwort	Asteraceae	perennial herb	May-Jul	None	None	G4?T2Q	S2	1B.2
<u><i>Wyethia elata</i></u>	Hall's wyethia	Asteraceae	perennial herb	May-Aug	None	None	G4	S4	4.3

Showing 1 to 37 of 37 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2022. Rare Plant Inventory (online edition, v9-01 1.5). Website <https://www.rareplants.cnps.org> [accessed 3 November 2022].

Appendix C

Cultural Resources Report

Draft

**PHASE I SURVEY,
GROVELAND COMMUNITY SERVICES DISTRICT
DROUGHT IMPROVEMENTS PROJECT,
TUOLUMNE COUNTY, CALIFORNIA**

Prepared for:

Mr. Travis Crawford
Crawford & Bowen Planning, Inc.
113 N. Church Street, Suite 310,
Visalia, CA 93291

Prepared by:

Peter A. Carey, M.A., RPA
Principle Investigator

and

K. Ross Way, A.A.
Associate Archaeologist

ASM Affiliates, Inc.
20424 W. Valley Blvd., Suite A
Tehachapi, CA 93561

February 2023
PN 36790.11

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MANAGEMENT SUMMARY

A Phase I cultural resources survey was conducted for the Groveland Community Services District (CSD) Drought Improvements Project (Project), Groveland, Tuolumne County, California. The study was conducted in preparation for proposed improvements to the drinking water infrastructure in Big Oak Flat, Groveland, and Pine Mountain Lake. The study area consists of multiple locations surrounding Groveland and the proposed improvements include a groundwater well, a storage tank, an approximately 5,500-foot (ft) water distribution line, relocation of the existing alternate water supply (AWS) treatment system, a new interconnection pipeline, a new hard rock groundwater well, and the installation of a new slide gate at the AWS intake. A 50-ft survey buffer was added to all project components, creating a study area totaling approximately 22.4-acres (ac).

This investigation was conducted by ASM Affiliates, Inc. (ASM) with Peter A. Carey, M.A., RPA, serving as Principal Investigator. Background studies for the survey were completed in November and December of 2022. Fieldwork was completed in January of 2023. The study was undertaken to assist with California Environmental Quality Act (CEQA) compliance.

A records search of site files and maps was conducted by the Central California Information Center (CCIC), California State University, Stanislaus on November 28th, 2022, for the current study. Results provided by the CCIC note a total of 8 previous projects that have been completed within the study area, and a total of 3 previously recorded sites have been documented. The record search also indicated that an additional 40 studies have been completed within a 0.5-mi radius of the study area with an additional 96 resources located within that same radius.

A search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed on December 12th, 2022. Based on the NAHC records, no sacred sites or traditional cultural places had been identified within or adjacent to the study area. Outreach letters were sent to tribal organizations on the NAHC contact list on January 10th, 2023. No responses have been received as of the writing of this report. The results of the NAHC *Sacred Lands File* search and tribal outreach are available in Confidential Appendix A.

ASM conducted the Phase I survey of the 22.4-ac study area on January 19th and 20th, 2023. The study area was surveyed using 15-m parallel transects where appropriate except along roadways. One new historic-era site (temporary field designation GROVE-SITE-1), a historic refuse scatter consisting of 60 tin cans, was identified and recorded during the current study. Additionally, portions of three previously recorded resources (P-55-005093, P-55-006492, and P-55-007318) located within the study area were investigated. Of the three previously recorded resources, P-55-006492 and P-55-007318 are historic mining related sites, while the remaining resource, P-55-005093, is California Registered Historical Landmark #406.

The portions of P-55-005093 and P-55-006492 identified by the CCIC as within the study area were investigated and no artifacts or features were identified. As such, no site updates were performed for those sites. A portion of site P-55-007318 was identified within the study area. Due to the limited scope of the distribution lines for the proposed project (i.e., within linear corridors along existing roads) and the large size of site P-55-007318, only the portion of the site within the

study area was updated during the survey. Site P-55-007318 exists along the proposed water distribution line on Harper Road.

Newly identified site GROVE-SITE-1 is recommended not eligible for inclusion in the California Register of Historical Resources (CRHR) under any criteria. Only a portion of site P-55-007318 is located within the study area along Harper Road. Since only a portion of site P-55-007318 was updated within the study area, a CRHR eligibility evaluation is out of the scope for this study. However, since the proposed distribution line will follow Harper Road, an existing paved road, site P-55-007318 will not be impacted by the proposed Project.

The proposed Groveland CSD Drought Improvements Project does not have the potential to result in adverse impacts to unique or significant historical resources. A determination of no significant impacts for cultural resources is therefore recommended. It is further recommended that, in the unlikely event that cultural resources are encountered during any construction or use of the study area, an archaeologist be contacted to assess the discovery.

1. INTRODUCTION AND REGULATORY CONTEXT

At the request of Crawford & Bowen Planning, Inc., a Phase I cultural resources survey was conducted for the Groveland CSD Drought Improvements Project (Project), Tuolumne County, California (Figure 1). The study was conducted in preparation for proposed improvements to the drinking water infrastructure in Big Oak Flat, Groveland, and Pine Mountain Lake.

The current investigation was intended to:

- Provide a background records search and literature review to determine if any known cultural resources were present in the project zone and/or whether the area had been previously and systematically studied by archaeologists;
- Conduct an on-foot, intensive inventory of the study area to identify and record previously undiscovered cultural resources and to examine known sites; and,
- To undertake a preliminary assessment of such resources, should any be found within the subject property.

ASM Affiliates, Inc., of Tehachapi, California, conducted the Phase I cultural resources study. Peter A. Carey, M.A., RPA, served as Principal Investigator, and fieldwork was completed by ASM Assistant Archaeologist Maria Silva, B.A.

This manuscript constitutes a report on the Phase I survey. Subsequent sections provide background to the investigation, the findings of the archival records search; a summary of the field surveying techniques employed; and the results of the survey fieldwork. We conclude with management recommendations, including a recommended determination of effect, for the study area.

1.1 PROJECT DESCRIPTION

The Groveland CSD is proposing to improve drinking water infrastructure in Big Oak Flat, Groveland and Pine Mountain Lake. The proposed Project consists of the following components:

- Installing a hard rock groundwater well adjacent to an existing storage tank (Tank 5);
- Installing a 140,000-gallon storage tank next to Tank 5 and 5500 linear feet of 8-inch water distribution pipeline from Tank 5 to Big Oak Flat;
- Relocating the existing trailer mounted alternate water supply treatment system to a permanent location and installing an interconnection pipeline between the new and existing locations;
- Installing a hard rock groundwater well at the alternate water supply treatment system permanent location; and,
- Installing a slide gate on the alternate water supply intake.

1.2 STUDY AREA DESCRIPTION AND LOCATION

The study area is split into multiple locations on the outskirts of the communities of Groveland and Big Oak Flat. The proposed distribution line follows the paved Harper Road near Big Oak Flat, while the proposed interconnection line follows the paved Ferretti Road around the western side of the Pine Mountain Lake Golf Course. The existing AWS location and the proposed new AWS location are at either end of the interconnection line. The AWS intake improvements will occur to the intake at Pine Mountain Lake. The new groundwater well and 140,000 gallon storage tank will be located next to Tank 5, which sits along Vernal Drive in the hills about Groveland and Big Oak Flat. A survey buffer of 50-ft was added to all Project components, creating a study area totaling approximately 22.4-ac (Figure 2).

1.3 REGULATORY CONTEXT

1.3.1 California Environmental Quality Act

CEQA is applicable to discretionary actions by state or local lead agencies. Under CEQA, lead agencies must analyze impacts to cultural resources. Significant impacts under CEQA occur when “historically significant” or “unique” cultural resources are adversely affected, which occurs when such resources could be altered or destroyed through project implementation. Historically significant cultural resources are defined by eligibility for or by listing in the California Register of Historical Resources (CRHR). In practice, the federal NRHP criteria for significance applied under Section 106 are generally (although not entirely) consistent with CRHR criteria (see PRC § 5024.1, Title 14 CCR, Section 4852 and § 15064.5(a)(3)).

Significant cultural resources are those archaeological resources and historical properties that:

- (1) Are associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- (2) Are associated with the lives of persons important in our past;
- (3) Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
- (4) Have yielded, or may be likely to yield, information important in prehistory or history.

Unique resources under CEQA, in slight contrast, are those that represent:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.

- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC § 21083.2(g)).

Preservation in place is the preferred approach under CEQA to mitigating adverse impacts to significant or unique cultural resources.

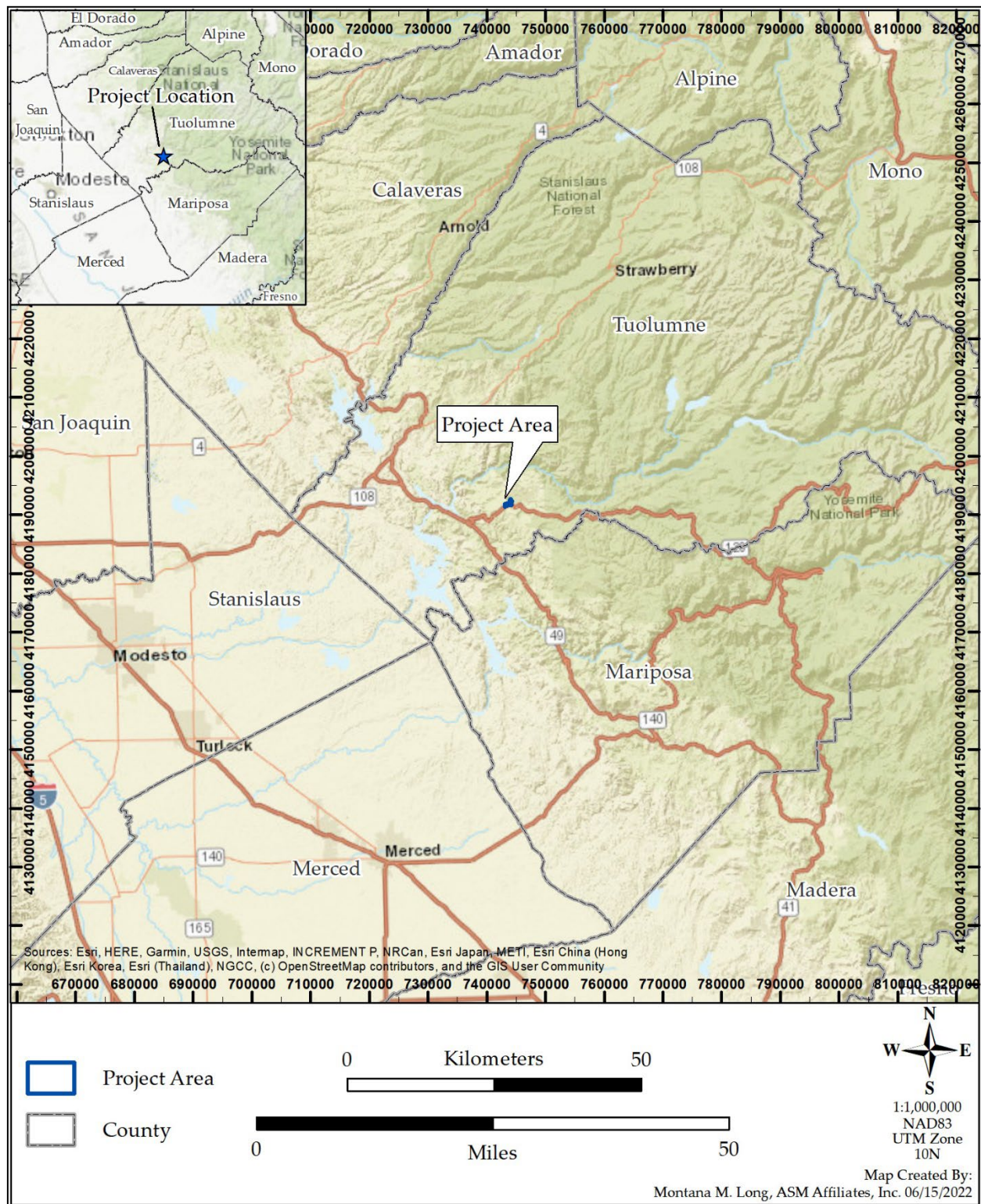


Figure 1. Groveland CSD Drought Improvements Project vicinity, Tuolumne County, California.

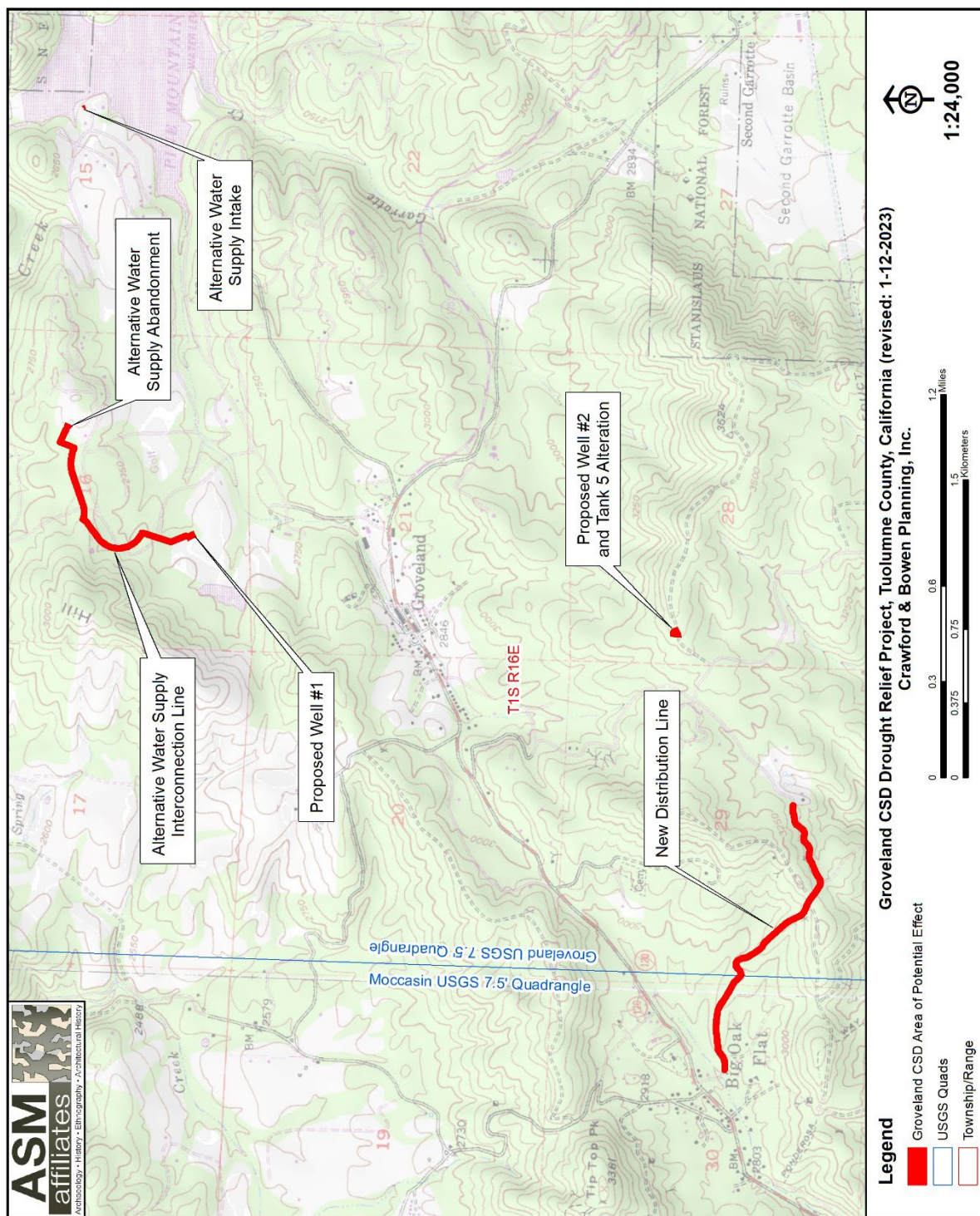


Figure 2. Groveland CSD Drought Improvements Project study area, Tuolumne County, California.

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2. ENVIRONMENTAL AND CULTURAL BACKGROUND

2.1 ENVIRONMENTAL BACKGROUND

The Project area is on the western foot slopes of the Sierra Nevada mountains to the east of the San Joaquin Valley in central California with elevations around 3,000-ft above sea level. The nearest modern water source is Pine Mountain Lake reservoir, which is approximately 1.5-mi northeast of Groveland within the Pine Mountain Lake Community. The reservoir is fed from Big Creek, Garrote Creek, and other tributaries within the Big Creek–Tuolumne River watershed. The region is densely forested and mountainous, indicative of the foothills of the western Sierra Nevada Mountains.

The geologic outcrops around the Project study area are predominantly Paleozoic marine metasedimentary rocks with mixed components of slate, sandstone, shale, chert, conglomerate, limestone, dolomite, marble, phyllite, schist, hornfels, and quartzite (Jennings et al. 2010). There are also minor amounts of Mesozoic quartz-rich granite outcrops adjacent to Groveland, which likely contributed to the source of desirable metals for the mining history of the area. Soils throughout the study area are a mix of multicomponent soils that are typically classified as gravelly loam/gravelly clay loam as part of the Urban land-Nedsgulch-Wallyhill complex, and sandy clay loam of the Musick-Hotaw complex (USDA, web soil survey 2021).

2.2 ETHNOGRAPHIC BACKGROUND

Prior to Euro American contact in 1789, the central Sierra Nevada foothills, which are in the project area, were traditionally occupied by the Central Sierra Miwok (also known as the Miwuk, Mi-wuk, or Me-wuk). Before contact, the Miwok were hunter-gathers who lived in small bands without a centralized political authority, cultivated tobacco, and domesticated dogs. Almost all edible vegetables were utilized as a food source by the Miwok, with oak acorns being a favorite staple for the fat and protein source. Other staple food sources included grasshoppers and mussels that groups collected along the Stanislaus River. In addition, the Miwok utilized flat-bottom baskets for the storage of food and later food consumption. The Miwok hunted animals with arrows, clubs, or snares, dependent on the animal and situation.

The Miwok of Tuolumne County lived in permanent but dispersed villages. These villages were usually near creeks, springs, or other freshwater sources and built below the heavy seasonal snowline. However, temporary hunting and gathering camps were established and occupied during the summer months in higher elevations. The permanent villages could vary in structure style, but each had vital elements, including a large storehouse where acorns, the primary dietary staple, were stored. Other essential elements at each permanent village included a sweathouse and roundhouse. The sweathouse was the smaller of the two structures and was primarily used for healing ceremonies; it contained a small fire pit inside. The Miwok roundhouse was used for religious and social activities and was the more expansive of the two structures. Homes within

Miwok villages were conical shaped, usually built of bark, containing one centralized fire pit and a smoke hole in the top.

Within Miwok communities, men were responsible for hunting, for tribal relations amongst other local indigenous groups, and for trading, including that of acorns, baskets, and other items such as pine nuts, salt, and obsidian. The women of the Miwok communities hand-crafted baskets and were responsible for gathering edible food items such as the acorn (Tuolumne Band of Me-Wuk Indians 2023; Tuolumne County Historical Society 2023).

2.3 PRE-CONTACT ARCHAEOLOGICAL BACKGROUND

The following section provides a regional chronology for the Sierra Nevada foothills and adjacent San Joaquin Valley by providing a categorization of prehistoric time periods in terms of cultural stages describing archaeological resources and cultural patterns for each time frame.

The Sierra Nevada foothills, adjacent San Joaquin Valley, and Coast Range have a long and complex cultural history with distinct regional patterns that extend back in time for more than 11,000 years (McGuire 1995). The region's physical landscape was characterized by grasslands and riparian forests with a large, diverse mammalian population. The inhabitants of the Central Valley were likely large game hunters. Evidence of early use of the San Joaquin Valley and the Sierra Nevada foothills is represented by the discovery of distinctive, fluted, and stemmed points (e.g., Clovis points), found margins of extinct lakes in the valley, including Tulare Lake, approximately 50 mi. southeast of the project. The hunters who used these points existed only between 11,200 and 10,900 B.P. The complex of artifacts characteristic of this period is often called the Clovis complex.

Most researchers believe that another widespread cultural complex followed the Clovis Complex, often termed Early Archaic. The indicative artifacts of this period, which has also been called by its geological name, the Early Holocene period, consist of stemmed spear points rather than the fluted points that typify the Clovis Complex. This poorly defined early cultural tradition is best known from a small number of sites in the San Joaquin Valley and the Sierra Nevada foothills and is thought to date from 8000 to 10,000 B.P.

The increase in food-grinding implements found in archaeological sites indicates that approximately 8,000 years ago, many California cultures shifted the focus of their subsistence strategies from hunting to seed gathering. Recent studies suggest that this cultural pattern is more widespread than initially assumed. In addition, archaeological sites at the base of the Sierra Nevada foothills consist of large artifact assemblages of millingslabs, handstones, and various cobble-core tools, representing “frequently visited camps in a seasonally structured settlement system” (Rosenthal et al. 2007:152), further indicating the reliance on plant foods during this time. Radiocarbon dates associated with this period vary between 8000 and 2000 B.P., and cluster in the 6000 to 4000 B.P. range.

Cultural patterns as reflected in the archaeological record have become better defined for archaeological cultures dating to the last 3,000 years. The archaeological record indicates increasing complexity as specialized adaptations to locally available resources develop and

populations expand. Many sites dated to this period contain mortars and pestles or are associated with bedrock mortars, suggesting that the occupants used acorns intensively.

The range of resources used for subsistence increased, and exchange systems expanded significantly from the previous period. Along the coast and in the Central Valley, archaeological evidence of social stratification and craft specialization is indicated by well-made artifacts, such as charm stones and beads, which were often found with burials (US Department of Interior 2008).

2.4 HISTORICAL BACKGROUND

Some of the earliest nonindigenous explorations of the Sierra Nevada mountains include Euro American explorers and fur trappers such as Jedediah Smith, Kit Carson, and Joseph Walker. The earliest of these nonindigenous expeditions and explorations took place in 1827 with Jedediah Smith and continued into the 1840s with small group expeditions trekking across the Sierra Nevada. Cartographers and explorers continued to explore the Sierra Nevada throughout the late nineteenth and early twentieth centuries, with Yosemite Valley becoming the first federally protected region of the Sierra in 1864 (Farquhar 1925).

The discovery of gold in northern California in 1848 resulted in a dramatic increase in population, consisting of a good portion of fortune seekers and gold miners who began to scour other parts of the state. After 1851, when gold was discovered in the Sierra Nevada mountains in eastern Kern County, the area's population snowballed. In California in 1848, with the exclusion of indigenous inhabitants, the population was 10,000 residents, and in just over five years, that number increased to 250,000 residents (Dilsaver 1983). Some new immigrants began ranching in the San Joaquin Valley to supply the miners and mining towns. Ranchers grazed cattle and sheep, and farmers dry-farmed or used limited irrigation to grow grain crops, leading to the creation of small agricultural communities throughout the valley (JRP Historical Consulting 2009). Like many short-lived and quickly produced mining towns and camps of the time, Groveland was constructed at the foothills of the Sierra Nevada. The miners that inhabited these towns and camps now turned from panning to lode and hydraulic mining during this time. The thrill and accessibility of easy gold was gone by the mid-1850s, and only labor-intensive mining operations remained productive. The once sprawling mining towns and camps amongst the foothills were ghost towns by the end of the 1860s. Nearly all mining operations were without indigenous peoples, having instead been run out by nonindigenous settlers.

The community of Groveland was founded by James D. Savage, who started mining in the area around 1849 during the Gold Rush. During this time, two mining camps were created, Big Oak Flat and Groveland. These camps were known as the western and eastern camps of "Savage's Diggins" at the time. Following Savage's departure from the area the following year, the eastern camp (Groveland) was renamed "Garrote," a Spanish term referring to a form of execution involving strangulation, after a Mexican man was hanged in the town for allegedly stealing gold dust said to value \$200. Coincidentally, another hanging took place in a camp a couple of miles east shortly thereafter and that settlement also received the name Garrote. Groveland got priority as the first Garrote and it became known as "Garrote I" or "First Garrote," while the other settlement became known as "Second Garrote." In 1875, Garrote was renamed Groveland at the suggestion of some

residents who found the name Garrote to be uncivil (Paden and Schlichtmann 1955). Second Garrote maintained its name and is now a ghost town and California Historic Landmark.

Groveland experienced three separate periods of economic growth: the Gold Rush Era (1849-1865), the Hard Rock Mining Era (1895-1915), and the Hetch-Hetchy Era (1914-1929). The Gold Rush Era (1849-1865), as previously discussed, is when the community of Groveland saw its beginnings. Groveland was part of the Big Oak Flat Mining District and numerous claims existing within Groveland and the surrounding communities, including Big Oak Flat No. 1 Lode and Cline Quartz Mine, which are both reported to be within the study area. The hard rock years were boom years, and the population in Tuolumne County grew by 83 percent between 1890 and 1900 (Pierce and Marti 2019). Like the production of gold, the hard rock mining boom was short-lived.

After the decline in mining, a new opportunity for the community of Groveland presented itself in the form of the O'Shaughnessy Dam and Hetch Hetchy Reservoir. The development of the Tuolumne River Hetch Hetchy water project for the city of San Francisco in the early 1900s enabled Groveland to develop and grow to substantial size despite always being a vital stop on the highway to Yosemite. Groveland was chosen as the site for the Mountain Division construction facilities and the railroad stock rolling maintenance station for the O'Shaughnessy Dam/Hetch Hetchy Reservoir. The Hetch Hetchy Railroad, which was used to carry workers and materials to the dam project, was constructed through the town just north of present-day Mary Laveroni Park on the north side of Groveland Creek (Garrote Creek). During this development, a hospital was constructed to temporarily treat and service the workers who settled in the area. After the dam's completion in 1933, the Hetch Hetchy Railroad saw limited use and Groveland became a less vital stop on the highway to Yosemite. The tracks for the Hetch Hetchy Railroad were removed in 1949 (Thornton 1994). The town received a revitalization and tourism boom in the late 1960s when Pine Mountain Lake, approximately one mile east of Groveland, was developed by Boise Cascade (GCSD 2023).

3. ARCHIVAL RECORDS SEARCH

In order to determine whether the 22.4-ac study area had been previously surveyed for cultural resources, and/or whether any such resources were known to exist within it, an archival records search was conducted by the staff of the CCIC on November 28th, 2022. This study is included in Confidential Appendix A of this report and is summarized below.

The records search was completed to determine: (i) if prehistoric or historical archaeological sites had previously been recorded within the study area; (ii) if the project area had been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the region of the field project was known to contain archaeological sites and to thereby be archaeologically sensitive. Records examined included archaeological site files and maps, the NRHP, Historic Property Data File, California Inventory of Historic Resources, and the California Points of Historic Interest.

Results provided by the CCIC indicate that a total of 8 previous projects have been completed within the Project area (Table 1). The results identified a total of 3 previously recorded sites within the study area (Table 2). The record search also indicated that an additional 40 studies have been completed with a 0.5-mi radius of the Project (Table 3), and that there are an additional 96 resources with a 0.5-mi radius of the Project (Table 4).

Table 1. Survey Reports Within the Study Area.

Report No.	Year	Author (s)/Affiliation	Title
TO-02225	1988	Thornton, M. V./ M. Thornton, for Southern Tuolumne County Historical Society	Big Oak Flat – Groveland, Historic Sites Survey, 1988
TO-03389	1998	Decker, D./ Bureau of Land Management	U.S. Department of the Interior Bureau of Land Management, Cultural Resource Inventory Report; Report Number: CA-018-S-TM-98/08, Priest Fuelbreak.
TO-05663	2004	Barnes, J./ Bureau of Land Management Folsom Field Office	Letter: Section 106 Review for the Wagner Fuel Break, Tuolumne County (Case # CA-018-S-TM-04/09).
TO-05713	2005	Francis, C., T. Brejla, and J. Marvin/Francis Heritage Services (and) Foothill Resources, Ltd., for Ronald and Patricia Dunlap	Cultural Resource Assessment, Dunlap Tentative Parcel Map 04T-61 on a Portion of the Cline Quartz Mine, Tuolumne County, California (APN 066-150-18-00).
TO-06044	2006	Davis-King, S./ Davis-King and Assc	Pole and Guy Replacements (SBC Pacific Bell), Encroachment Permit 1005-6UC-0680 State Route 120 Near Big Oak Flat, Tuolumne County, California
TO-06663	2008	Nolte, M., M. Millett, and M. Maniery/PAR Environmental Services, Inc.	Cultural Resources Inventory, Big Oak Flat Village Project, Tuolumne County, California
TO-07343	2010	Barnes, J./ Bureau of Land Management	United States Department of the Interior Bureau of Land Management Mother Lode Field Office Section 106 Compliance for the Wagner Ridge Fuel Break Maintenance Tuolumne and Mariposa Counties (BLM case # CA-018-S-TM-10/06)

3. Archival Records Search

Report No.	Year	Author (s)/Affiliation	Title
TO-08968	2018	Davis, S., and C. Wills/ Helix Environmental Planning	Cultural Resources Records Search and Site Visit Results for AT&T Mobility, LLC Candidate CVL03069 (Groveland), 18790 Vernal Drive, Groveland, Tuolumne County, California (EBI Project #6118005444)

Table 2. Resources Within the Study Area.

Resource	Type	Description
P-55-005093	Site	Historic Mark Twain Bret Harte Trail Monument
P-55-006492	Site	Historic mining site
P-55-007318	Structure, Site	Historic mine and machinery

Table 3. Survey Reports Within 0.5-mi of the Study Area.

Report No.	Year	Author (s)/Affiliation	Title
TO-00962	1986	Balen, B./ Barbara Balen, Cultural Resource Surveyor and Consultant, for SIMCO Development Corp.	A Cultural Resource Survey Report for Yosemite Way Station 80 Acres in Big Oak Flat, Tuolumne County, California
TO-01158	1983	Levulett, V. A./ Caltrans District 10	Archaeological Survey Report for the Proposed Groveland Bypass Project, Tuolumne County 10-TUO-120 P.M. 29.3/33.3 10203-031281. See also HRER TO-01158A and HAS TO-01158B
TO-01158A	1983	O'Connor, D. and M. V. Speer/California Department of Transportation	Historical Resource Evaluation Report for Groveland Bypass. 10-TUO-120 P. M. 29.33/R33.3; 10203-031281
TO-01158B	1982	Snyder, J. W./ California Department of Transportation	An Historic Architectural Survey of Groveland Bypass on 10-TUO-120, P.M. 29.3/R33.3; 14 buildings records attached; no maps attached showing location of buildings; one building is the former mill associated with the Sampson Mine P-55-007294 on BLM property
TO-01841	1992	Dougherty, J. W./ Archaeological Services, Inc.	An Archaeological Survey of Parcel APN 7-201-05, The Ludwig Project, Big Oak Flat, Tuolumne County, California
TO-02268	1994	Davis-King, S. and J. Marvin/ Davis-King & Associates (and) Foothill Resources, Ltd.; prepared for The County of Tuolumne	Contextual History of Tuolumne County.
TO-03733	1992	Byars, M. A. and J. W. Dougherty/ Archaeological Services, Inc.	An Archaeological Study of Two Parcels (APN 7-201-03 AND 7-201-01) of the Three Parcel Ludwig Project, in Big Oak Flat, Tuolumne County, California
TO-04124	2000	Tate, Tim (RPF)/ Blue Mountain Resources, Inc.; for CDF	Confidential Archaeological Addendum for Timber Operations on Non-Federal Lands in California; Project: S & L THP, #4-00-72/TUO-7
TO-04529	2002	Francis, C. M./ C. M. Francis	Cultural Resource Survey, Our Lady of Mt. Carmel Catholic Church, Big Oak Flat, California

Report No.	Year	Author (s)/Affiliation	Title
TO-05498	2004	Leach-Palm, L., P. Mikkelsen, J. King, J. Hatch, and B. Larson/ Far Western Anthropological Research Group Inc. (and) JRP Historical Consulting Services; prepared for Caltrans District 10	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume I: Summary of Methods and Findings.
TO-05501	2004	Rosenthal, J. S. and J. Meyer/Far Western Anthropological Research Group, Inc. (and) Sonoma State University; prepared for Caltrans District 10	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume III: Geoarchaeological Study.
TO-05505	2004	Leach-Palm, L., J. King, J. Hatch, and B. Larson/Far Western Anthropological Research Group, Inc. (and) JRP Historical Consulting Services (and) Foothill Resources, Ltd.; prepared for Caltrans District 10	Cultural Resources Inventory of Caltrans District 10 Rural Conventional Highways; Volume II H: Tuolumne County
TO-05644	2003	Barnes, J./ Barnes	Cultural Resource Inventory Report, Culvert Repair at Big Oak Flat Little League Field, CA-018-S-TM-04/01.
TO-05645	2004	Barnes, J./ Barnes	Cultural Resources Inventory Report, Big Oak Flat Little League Field R&PP, CA-018-S-TM-04/04.
TO-05715	2005	Francis, C./ Francis Heritage Services; for Tom and Lauree Borup (property owners)	Cultural Resource Survey, Borup Tentative Parcel Map 04T-59, Tuolumne County, California (APN 066-181-73-00).
TO-05983	2005	Decker, D./ Dean Decker	Cultural Resources Inventory Report CA-018-S-TM-05/02 Folsom Reimers/ Penning Access Road R/W CA 46888
TO-06878	2008	Wycko, B./ San Francisco Planning Department	San Joaquin Pipeline System Project, Draft EIR, San Francisco Planning Department Case No. 2007.0118E, State Clearinghouse No. 2007032138
TO-06878	2010	San Francisco Planning Department/ San Francisco Planning Department/Public Utilities Commission	Preliminary Mitigated Negative Declaration, Rehabilitation of the Existing San Joaquin Pipelines, Portions of Tuolumne, Stanislaus and San Joaquin Counties, and the Cities of Riverbank and Modesto
TO-06886	2008	San Francisco Public Utilities Commission/ SFPUC	San Francisco Public Utilities Commission San Joaquin Regional Water Quality Improvement Project, Draft Environmental Impact Report.
TO-07097	2009	Barnes, J./ Bureau of Land Management	Section 106 Compliance for AML Hazard Abatement Work (PUF Closures), Tuolumne County BLM Case # CA-018-S-TM-09/06
TO-07255	2008	Werner, Roger H./ ASI Archaeology and Cultural Resource Management	Cultural Resources Investigation for a Proposed Lot Line Adjustment on State Route 120, Near Big Oak Flat, Tuolumne County, California (and) Letter Report Re: Yosemite Gateway Cultural Resources Study Addendum
TO-07814	2013	Ashe, C./ U.S. Forest Service, Stanislaus National Forest	Stanislaus National Forest, Heritage Resources, 1996 Sierra Nevada Programmatic Agreement Project Certification, Ponderosa Way Fuel Break Passport-in-Time Project, CRMR 05-16-1316, Calaveras, Mariposa, and Tuolumne Counties
TO-07892	2014	Francis, C. and Judith Marvin/ Francis Heritage Services and Foothill Resources Ltd.	AT&T Fiber Optic Project, Big Oak Flat, Tuolumne County, California.
TO-08041	2013	Estes, Allen, Young, Thomas, and Fino, Nazih/ William Self Associates, Inc. (WSA) for RMC Water and Environment	Final Archaeological Survey Report Mountain Tunnel Geotechnical Project, Tuolumne County, California.
TO-08207	2011	Barnes, J./ BLM Mother Lode Field Office	Cultural Resource Inventory Report, USDI BLM Mother Lode Field Office, Project: AML Physical Hazard Abatement Projects (Puff Closures, Bat Culverts, and Heavy Equipment Work), Tuolumne County, California, Case #CA-018-S-TM-11/03.

3. Archival Records Search

Report No.	Year	Author (s)/Affiliation	Title
TO-08314	2011	Barnes, J./ Bureau of Land Management- Mother Lode Field Office	USDI BLM Cultural Resource Inventory Report Chacona ROW (Case # CA-018-S-TM-12/01)
TO-08323	2013	Barnes, J./ Bureau of Land Management- Mother Lode Field Office	Cultural Resource Inventory Report U.S.D.I. B.L.M. Removal of Contaminated Soils near the Longfellow Mill (CA-018-S-TM-13/03)
TO-08326	2014	Francis, C. and Marvin, J./ AT & T California	Cultural Resource Inventory Report U.S.D.I. B.L.M. Fiber Optic Project, Big Oak Flat, Tuolumne County, California CA-018-S-TM-4/02
TO-08386	1991	Quin, Richard H./ USDI National Park Service	Big Oak Flat Road (HAER No. CA-147) Written Historical and Descriptive Data. (One in a series of reports prepared for the Yosemite National Park Roads and Bridges Recording Project).
TO-08748	2017	Ugan, A., T. Hildebrandt, and M. Darcangelo/ Far Western Anthropological Research Group, Inc. for Caltrans District 10	State Route 120 Hazard Tree Removal Cultural Resources Report, Tuolumne and Mariposa Counties, California
TO-08943	2018	Estess, A., and N. Fino/ PaleoWest Archaeology for San Francisco Planning Department	Final Archaeological Resources Survey Report for the Valley Area ROW and Culvert Locations of the Reliable Power Project, Tuolumne and Stanislaus Counties, California; Technical Report 18-566
TO-08955	2019	Pierce, W., and K. Marti/ California State Water Resources Control Board	State Water Resources Control Board Supplemental Historic Properties Identification Report, Groveland Community Services District Downtown Groveland and Big Oak Flat Sewer Collection System Improvement Project, Tuolumne County, California
TO-08956	2016	Roper, C. K./ Sierra Valley Cultural Planning	A Cultural Resources Assessment for the Proposed Groveland Community Services District Sewer Collection System Project, Groveland and Big Oak Flat, Tuolumne County, California
TO-08957	2019	Ugan, Andrew and Whitaker, Adrian/ Far Western Anthropological Research Group, Inc.	Archaeological Survey Report, 2018 Hazard Tree Removal Project, Tuolumne and Mariposa Counties, California, Caltrans District 10, State Route 120, PM 24.0-56.6, EFIS 10-1800-0018, EA 10-1F6423
TO-09113	2019	AECOM/ AECOM for The San Francisco Public Utilities Commission	Historic Context and Archaeological Survey Report for Mountain Tunnel Improvements Project, Tuolumne County, California (CASE No. 2017-014249ENV)
TO-09113	2019	AECOM/ AECOM	Historical Resources Evaluation Addendum, Mountain Tunnel Improvements Project
TO-09113	2015	Norby, H. and C. McMorris/ JRP Historical Consulting, LLC for San Francisco Public Utilities Commission	Mountain Tunnel Access & Adit Improvement Project, Tuolumne County; Historic Resources Evaluation
TO-09251	2020	Joy, S. and M. Webb/ ECORP Consulting, Inc. for TK Consulting	Cultural Resources Inventory and Evaluation Report, Yonder Yosemite Project, Tuolumne County, California
TO-09286	2021	Bibby, T., A. Jokela, and D. Whitley/ ASM Affiliates for Groveland Community	Cultural Resources Survey and Supplemental Report, Sewer Collection System Improvement Project, Big Oak Flat, Groveland and Pine Mountain Lake, Groveland Community Services District, Tuolumne County, California
TO-09353	2022	Buechler, D. and I. Hickey/ Transcon Environmental for PG&E	PG&E Cultural Resources Constraints Report PEORIA 1701 - Big oak Flat Pole Replacement [Tuolumne County, California]

Table 4. Resources Within 0.5-mi of the Study Area.

Resource	Type	Description
P-55-000110	Structure, Site	Historic foundations, railroad bed, and walls
P-55-000154	Site	Historic mill machinery and wall
P-55-001042	Site	Prehistoric bedrock mortar, midden and lithic scatter; Historic foundation, wood structure and wall remnants
P-55-001043	Site	Unknown
P-55-002364	Site	Historic refuse
P-55-002365	Structure	Historic water ditch and siphon
P-55-002739	Structure	Historic water conveyance system and dam
P-55-002994	Structure	Historic canal/aqueduct
P-55-004140	Structure, Site	Historic road, water conveyance system and refuse
P-55-004742	Building	Historic community center
P-55-005098	Site	Historic Building
P-55-005297	Building	Historic residence
P-55-005298	Building	Historic residence
P-55-005300	Building	Historic residence
P-55-005301	Building	Historic residence
P-55-005302	Building	Historic sawmill
P-55-005303	Building	Historic church
P-55-005304	Building	Historic residence
P-55-005305	Building	Historic residence
P-55-005306	Building	Historic cemetery
P-55-005307	Building	Historic residence
P-55-005308	Building	Historic residence
P-55-005309	Building	Historic schoolhouse
P-55-005310	Building	Historic residence
P-55-005311	Building	Historic residence
P-55-005312	Building	Historic residence
P-55-005313	Building	Historic residence
P-55-005314	Building	Historic residence
P-55-005315	Building	Historic gas station/store
P-55-005316	Building	Historic residence
P-55-005317	Building	Historic residence
P-55-005318	Building	Historic residence
P-55-005319	Building	Historic residence
P-55-005320	Building	Historic commercial building and storage shed
P-55-005321	Building	Historic residence
P-55-005322	Building	Historic commercial building
P-55-005323	Building	Historic residence
P-55-005324	Building	Historic residence
P-55-005325	Building	Historic residence
P-55-005326	Building	Historic residence
P-55-005327	Building	Historic residence
P-55-005328	Building	Historic residence
P-55-005329	Building	Historic commercial building
P-55-005330	Building	Historic residence
P-55-005332	Building	Historic residence
P-55-005333	Building	Historic residence
P-55-006975	Other	Historic foundation
P-55-006985	Site	Historic mines/quarries/tailings
P-55-007289	Site	Historic refuse

3. Archival Records Search

Resource	Type	Description
P-55-007319	Site	Historic mine, dam and foundation
P-55-007320	Site	Historic bridge
P-55-007321	Site	Historic rock chimney and trash scatter
P-55-007322	Building	Historic residence
P-55-007432	Site	Historic refuse scatter
P-55-007725	Site	Historic mines/quarries/tailings
P-55-007726	Site	Historic mines/quarries/tailings
P-55-007727	Site	Historic mines/quarries/tailings
P-55-007748	Building	Historic residence/farm
P-55-007976	Site	Historic mines
P-55-008166	Site	Historic trash scatter and mines
P-55-008167	Site	Historic structure, trash scatter, roads, dams and mines
P-55-008473	Structure	Historic fuel break
P-55-008545	Site	Prehistoric lithic scatter and quarry
P-55-009290	Site	Historic mines
P-55-009941	Structure	Historic wells/cisterns
P-55-000110	Structure, Site	Historic railroad
P-55-000718	Site	Historic
P-55-000719	Site	Historic
P-55-000720	Building, Structure, Site	Historic
P-55-000721	Site	Historic mines/quarries/tailings, roadbed, bridge abatement, ditch and dam
P-55-001040	Site	Prehistoric lithic scatter, midden and bedrock mortar
P-55-001867	Site	Prehistoric
P-55-001868	Site	Prehistoric
P-55-001869	Site	Prehistoric, Historic
P-55-001870	Site	Prehistoric
P-55-001871	Site	Prehistoric, Historic
P-55-002366	Site	Historic water conveyance system and mines/quarries/tailings
P-55-002367	Site	Historic hospital and other commercial structures
P-55-002368	Site	Historic
P-55-002369	Site	Historic
P-55-002370	Site	Historic
P-55-004934	Site	Historic
P-55-004935	Site	Historic
P-55-005377	Building	Historic residence
P-55-006354	Structure, Site	Historic
P-55-006623	Site	Historic
P-55-006730	Site	Historic
P-55-006732	Structure	Historic
P-55-006945	Site	Historic
P-55-007294	Site	Historic
P-55-007399	Site	Historic
P-55-007400	Site	Historic
P-55-009421	Site	Historic
P-55-009507	Site	Historic
P-55-009693	Site	Historic rock wall

A search of the NAHC *Sacred Lands File* was completed on December 12th, 2022. Based on the NAHC records, no sacred sites or traditional cultural places had been identified within or adjacent to the study area. Outreach letters were sent to tribal organizations on the NAHC contact list on January 10th, 2023. No responses have been received as of the writing of this report. The results of the NAHC *Sacred Lands File* search and tribal outreach are available in Confidential Appendix A.

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4. METHODS AND RESULTS

4.1 SURVEY METHODS

Field methods were designed to meet all professional requirements, including the *Secretary of the Interior's Standards and Guidelines*. ASM completed an intensive, on-foot examination of the ground surface by walking parallel 15-m transects, looking for evidence of archaeological sites in the form of artifacts, surface features (such as house pits), and archaeological indicators (e.g., anthropogenic soils or burnt animal bone). The identification and location of any new or previously discovered sites; tabulation and recording of surface diagnostic artifacts; site photography and sketch mapping; preliminary evaluation of site integrity; and site recording or, in the case of previously recorded sites, site record updating followed the California OHP Instructions for Recording Historic Resources and Department of Parks and Recreation (DPR) 523 forms for site recording. GPS data was collected with an Apple iPad mini using the ArcGIS Field Maps app paired with an Arrow 100 receiver unit capable of sub-foot accuracy.

4.2 SURVEY RESULTS

An intensive Phase I pedestrian survey of the entire 22.4-ac Project study area was completed on January 19th and 20th, 2023, by ASM Assistant Archaeologist Maria Silva, B.A. One new resource, GROVE-SITE-1, was identified during the field survey. Three previously recorded sites (P-55-005093, P-55-006492, and P-55-007318) identified by the CCIC as located within the study area were revisited during the field survey. Sites P-55-006492 and P-55-007318 are historic mining related sites, while the remaining resource, P-55-005093, is California Registered Historical Landmark #406. No evidence of P-55-005093 or P-55-006492 was located within the study area and, therefore, neither resource was updated. A brief description of the sites as last recorded is provided below.

Site P-55-007318 was relocated during the field survey and found to be partially located with the study area. Due to the limited scope of the proposed distribution line (i.e., within linear corridors along existing roads and paths) and the large size of the previously recorded site, only the portion of the site located within the study area was updated. A site description and site update are provided below.

Original site records for the three sites located within the study area are available in Confidential Appendix B. The site record for newly recorded site GROVE-SITE-1 and the site record update completed for the portion of site P-55-007318 located within the study area are available in Confidential Appendix C. All photographs and sketch and location maps for the updated resources are available in their respective records.

4.2.1 GROVE-SITE-1

Site GROVE-SITE-1 consists of a historic-era can scatter that measures 26-ft (north-south) by 48-ft (east-west). Refuse at GROVE-SITE-1 includes approximately 60 cans consisting of knife-opened sanitary cans, hole-in-top cans, an internal friction square can, and at least one rotary

opened coffee can. This refuse deposit appears to date to the early 20th-century and likely represents a one-time dump site.

4.2.2 P-55-005093

Site P-55-005093 is California Registered Historical Landmark #406. As part of a related Groveland CSD project (ASM Affiliates 2021), ASM revisited the site. The digital site boundary provided by the Central California Information Center was an approximately 0.6-mi diameter circle centered over Big Oak Flat, California. During the 2021 site visit, ASM relocated the Landmark near the intersection of Vassar Street and CA-120. At the time, it was noted that the monument appeared in good standing with traces of graffiti etched into the bronze plaque. The structure of the monument was reported to be locally sourced quartz rich rock mortared with cement with iron bars.

4.2.3 P-55-006492/CA-TUO-3816H

Site P-55-006492 is a gold mine patented as “Big Oak Flat No. 1 Lode.” It was first recorded in 2002 by Charla Francis of Francis Heritage Services. It was patented in 1915 by the Central Land and Trust Company. At the time of the mineral survey plat (1914), improvements on the claim included 4 tunnels, 1 shaft, a cabin, hoist building, boiler, blacksmith shop, and mill, of which all but some tunnels were on the south side of the Big Oak Flat Road. ASM revisited the site during the current project and found no elements of the site within the proposed Project study area.

4.2.4 P-55-007318/CA-TUO-4779H

Site P-55-007318/CA-TUO-4779H is the Cline Quartz Mine. It was originally recorded by John Vittands of Francis Heritage Services in 2005. It consists of a gold mine and associated workings that include an adit with hoist works, a motorized winch, and two water tanks dating to roughly 1918-1942. A concrete water storage tank was apparently constructed in the 1960s across the threshold of the adit (Vittands 2005).

During the 2023 update, ASM was able to relocate the adit adjacent to Harper Road, and investigate an area of 161-ft by 150-ft along the proposed water distribution line alignment for the current project. The adit opens to the right-of-way for Harper Road, but the remaining elements of the mining site are located uphill outside the Project study area. The concrete water storage tank has been removed from in front of the collapsed adit entrance, and all that remains of this feature are the dry-fitted slate masonry walls on either side of the cut bank. A number of boards were observed leaning against a sidewall of the cut and are possibly the remnants of the cover for the old 1960s water tank that appears in the photo of the original record (Vittands 2005:1). No other materials associated with the site were apparent within the Project study area.

5. SUMMARY AND RECOMMENDATIONS

An intensive Phase I cultural resources survey was conducted on a 22.4-ac study area for the Groveland CSD Drought Relief Project. A records search of site files and maps was conducted for this study by the staff at the CCIC, California State University, Stanislaus on November 28th, 2022. Results provided by the CCIC note a total of 8 previous projects that have been completed within the study area, and a total of 3 previously recorded sites have been documented. The record search also indicated that an additional 40 studies have been completed with a 0.5-mi radius of the study area with an additional 96 resources located within that same radius.

A search of the NAHC *Sacred Lands File* was completed on December 12th, 2022. Based on the NAHC records, no sacred sites or traditional cultural places had been identified within or adjacent to the study area. Outreach letters were sent to tribal organizations on the NAHC contact list on January 10th, 2023. No responses have been received as of the writing of this report.

ASM conducted the Phase I survey of the 22.4-ac study area on January 19th and 20th, 2023. The study area was surveyed using 15-m parallel transects where appropriate except along roadways. One new archaeological site, temporary field designation GROVE-SITE-1, a historic refuse scatter consisting of 60 tin cans, was identified and recorded during the current study. Additionally, portions of three previously recorded resources (P-55-005093, P-55-006492, and P-55-007318) located within the study area were investigated during the current study. Of the three previously recorded resources, P-55-006492 and P-55-007318 are historic mining related sites, while the remaining resource, P-55-005093, is California Registered Historical Landmark #406.

5.1 RECOMMENDATIONS

Site P-55-005093 is a monument for California Registered Historical Landmark #406. It is located outside of the study area and will be avoided by the proposed Project. Additionally no recorded features for site P-55-006492 are located within the study area. As the proposed Project will follow the paved Harper Road in the vicinity of the recorded site, the site will not be impacted by the Project.

Site P-55-007318 consists of a historic mining site located immediately adjacent to Harper Road along the proposed new water distribution line. An evaluation for eligibility to the CRHR was outside of the scope of this study; however, since the proposed Project will follow the paved Harper Road through the site there will be no impact to the site as a result of the project.

Site GROVE-SITE-1 is a small historic refuse deposit. While it does meet the age requirements for eligibility to the CRHR, it shows no association with important events or persons (Criterion 1 and 2); does not embody characteristics of a type, period, region, or method of construction, or represent the work of an important person (Criterion 3); and consists of mass-produced items thereby precluding the ability to yield important information in history (Criterion 4). For those reasons, site GROVE-SITE-1 is recommended as not eligible for inclusion in the CRHR.

The proposed Groveland CSD Drought Relief Project does not have the potential to result in adverse impacts to unique or significant historical resources. A determination of no significant impacts for cultural resources is therefore recommended. It is further recommended that, in the unlikely event that cultural resources are encountered during any construction or use of the study area, an archaeologist be contacted to assess the discovery.

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CONFIDENTIAL APPENDICES