
**CEQA INITIAL STUDY
FOR THE NORTH YUBA WATER DISTRICT
CHALLENGE TANK REPLACEMENT PROJECT
AND
WATER SERVICE METERS REPLACEMENT PROJECT,
YUBA AND BUTTE COUNTIES, CALIFORNIA**

JANUARY 26, 2020

APPLICANT FOR STATE WATER REVOLVING FUNDS:

NORTH YUBA WATER DISTRICT

CEQA LEAD AGENCY:

NORTH YUBA WATER DISTRICT

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GENERAL INFORMATION ABOUT THIS DOCUMENT

This Initial Study with Mitigated Negative Declaration has been prepared for the proposed Challenge Tank Replacement Project and the Water Service Meters Replacement Project located in Yuba and Butte Counties, California. The North Yuba Water District is the lead agency under the California Environmental Quality Act (CEQA). This document explains the project purpose, alternatives that have been considered for the project, how the existing environment could be affected by the project, the potential impacts of the project, and the proposed avoidance, minimization, and/or mitigation measures. The Initial Study will be circulated to the public for 30 days to provide information and solicit public comments. Comments received during this period will be considered by the Lead Agency before making the determination.

The Drinking Water State Revolving Fund (DWSRF) program is a federal-state partnership to help ensure safe drinking water. Created by the 1996 Amendments to the Safe Drinking Water Act (SDWA), the program provides financial support to water systems and to State safe water programs (<https://www.epa.gov/drinkingwatersrf>). In California, the State Water Resources Control Board (SWRCB) administers the DWSRF program. As part of the DWSRF application process, applicants are required to submit an Environmental Package that includes applicable CEQA documents and additional supporting technical reports. Typically, the applicant is the CEQA Lead Agency and the SWRCB is a CEQA Responsible Agency. As a Responsible Agency, the SWRCB must make its own findings using information provided by the Lead Agency before funding a project. During the environmental review process, the DWSRF Environmental Review Staff will review the documents to determine adequacy of environmental information and compliance with state and federal environmental laws and regulations. The environmental review process must be completed prior to the SWRCB financing approval and project construction.

The DWSRF Program is partially funded by the United States Environmental Protection Agency and therefore projects financed by the DWSRF Program must comply with the federal cross-cutting requirements. The SWRCB has the authority to initiate consultation with the relevant federal agencies having jurisdiction over the federal environmental laws and regulations. Any issues raised by the relevant federal agencies must be resolved prior to completing the SWRCB environmental review process and financing approval.

PERMITS AND APPROVALS NEEDED

State Water Resources Control Board

As part of the DWSRF application process, applicants are required to submit an Environmental Package, applicable CEQA documents, and additional supporting technical reports. The environmental review process must be completed prior to the State Water Board financing approval.

The SWRCB Division of Drinking Water regulates water suppliers; modification of the Challenge Tank water system may require permit review, modification, and or renewal.

Any construction project that disturbs at least one acre of land requires enrollment in the SWRCB's Construction General Permit Order 2009-0009-DWQ under the National Pollutant Discharge Elimination System and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

United States Forest Service

The Challenge Tank project area is owned by the U.S. Forest Service. The land is used by the North Yuba Water District under a lease agreement (Special Use Permit Number FR0037) with Plumas National Forest.

Counties of Butte and Yuba

A traffic control plan or a grading permit may be required by either county for work on the Water Service Meters Replacement Project.

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” or “Potentially Significant Unless Mitigated” as indicated by the checklist on the following pages.

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

PROPOSED MITIGATED NEGATIVE DECLARATION

This proposed Mitigated Negative Declaration (MND) provides notice to interested agencies and the public that it is the Lead Agency's intent to adopt a MND for this project. This does not mean that the Lead Agency's decision regarding the project is final. This MND is subject to change based upon comments received from interested agencies and the public.

The Lead Agency has prepared an Initial Study for this project, and pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment.

Determination. (To be completed by the Lead Agency.)

On the basis of this initial evaluation:

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

(name and title)
(agency)

7/15/2020

Date

PROJECT DESCRIPTION

Challenge Tank Replacement Project

The SWRCB Division of Financial Assistance (DFA) has funded activities to address aging infrastructure for the municipal water system that is operated by North Yuba Water District (NYWD). The work is being conducted under Proposition 1 Technical Assistance and Support Program funding through the SWRCB, Agreement No. D16-12810, Work Plan No. 4999. The proposed project is the replacement of an existing water storage tank (the Challenge Tank) that is part of the domestic water supply system owned and operated by the NYWD. The Challenge Tank has exceeded its designed lifespan and leaks continuously. Replacing the existing leaking tank will eliminate a major source of water loss for the NYWD. The project budget estimate to replace the Challenge Tank is about \$500,000.

The Challenge Tank is located on Old La Porte Road, within the town of Challenge, California, in Yuba County, California. The tank is situated on a small parcel (approximately 0.5 acres; APN 050-110-220) leased from the U.S. Forest Service Plumas National Forest. The existing tank was built in 1965. The cylindrical tank is 18 feet tall and 32 feet in diameter and has a storage capacity of 100,000 gallons of water. The tank was made from redwood staves and steel hoops and is bolted to a concrete foundation. Ancillary facilities consist of a valve control box and an access driveway. The existing tank is leaking and will be replaced with a metal tank of similar dimensions. The estimated construction time is three months. After removing the old tank and foundations, a new reinforced concrete foundation will be cast in the same area as the existing foundation. The new tank will be assembled with pre-fabricated bolted steel or welded steel plates. A new valve box containing valves and piping will be installed in the ground. The new valves will regulate the water level in the tank. Similar to the existing system, treated water will gravity feed into the tank via an existing supply pipeline (6-inch steel pipe). The treated water comes from the NYWD water treatment plant in Forbestown.

The Challenge Tank project area was defined as the combined perimeter of the tank foundations, the valve box, and the driveway, and is about 4,000 square feet (the "Project Area" or "Action Area"). This project does not include the other planned upgrades to the NYWD water system: water service meter upgrades and conversion of flumes to pipelines.

Water Service Meters Replacement Project

NYWD provides domestic and irrigation water to its customers in the north Yuba County / south Butte County region, and serves the communities of Brownsville, Challenge, Dobbins, Forbestown, Oregon House, and Rackerby. Treated water from the NYWD treatment plant at Forbestown is distributed to customers via buried water mains (4 inch to 8 inch diameter pipes, primarily PVC). The existing water service meters are more than ten years old and no longer accurately record water use, nor do they convey information electronically. Water use data are used for billing purposes, and under-reporting of water use by old meters results in lost revenue for NYWD. In addition, accurate water meters help identify system leaks and provide other water conservation information.

The most common meter installed in the NYWD service area is the Neptune T10, a mechanical meter in bronze housing and 1-inch pipe fittings. This type of meter requires a visual reading to record flow rate for measuring customer water consumption. The existing meters are housed in several styles of shallow, buried rectangular meter boxes, made either of reinforced concrete or polymer plastic. The typical dimensions of the meter boxes are 10 inches wide by 15.5 inches long by 12 inches deep with the lid at ground surface.

The proposed project consists of removing the old meters and meter boxes using hand tools and small motorized equipment, splicing in new meters using wrenches, installing new meter boxes, and restoring the ground surface after backfill and compaction using hand tools. The new meter boxes will be about same dimensions as the old boxes, and they will be made primarily of polymer plastic. Reinforced concrete boxes may be used in areas of higher vehicular traffic. The new water service meters are a combination of mechanical and electronic parts and are called “smart meters.” Smart meters are able to transmit flow data wirelessly to a receiver that can be located in a passing vehicle operated by an NYWD employee or on radio towers that can transmit the data to a central location. Smart meters allow for more accurate measurement of water use as well as detection of water leaks. NYWD currently has approximately 839 service connections that need to receive new meters and boxes. The proposed project will span several months, with meters being replaced in sequence along water distribution lines. Each meter replacement will take several hours to complete, and the total volume of ground disturbance at each meter is about two cubic feet (1 foot wide by 2 foot long by 1 foot deep).

The project area was defined as the aggregate area of all of the individual service meter box areas plus a buffer of 10 feet around each box.

PROJECT ALTERNATIVES

Challenge Tank Replacement Project

Consolidation

The nearest water system to NYWD is the 7 Lakes Resort water supply system which is located roughly six miles along a public right-of-way from the nearest NYWD facility. A physical connection (e.g. an underground pipeline) between the two facilities would not be practical due to the mountainous terrain and the large distance between the two facilities. There are no apparent reasons or benefits to consolidate any system with NYWD.

Different Tank Location

The new Challenge Tank is proposed to be located at the existing tank site. Relocation of the tank to a new parcel would require the acquisition of land and the relocation of water supply pipes. Relocation of the tank would also change pressure levels in water supply pipes, which could result in overpressurized and underpressurized pipes and affect water delivery to certain service locations. This alternative would be much more expensive than replacing the existing tank, and could trigger new infrastructure challenges or failures for the water supply system. A new tank location could have greater environmental impacts as well. Thus, this alternative is not feasible.

Removal of Tank

Engineers examined whether removing the tank would be a viable option (California Rural Water Association 2018). Hydraulic computer modelling showed that the tank was needed to sustain pressures in the areas near the tank during peak hour demand conditions. The Challenge Tank also provides the system with additional support for fire-flow demands and can supply water if pipes along the main line from the NYWD water treatment plant break or need to be repaired. Removal of the tank would result in unacceptable water system pressure losses and would remove critical water storage capacity. Furthermore, NYWD would not be eligible for any grant funds from the DWSRF. Thus, this alternative is not feasible.

No Project Alternative

The No-project Alternative retains and uses the existing Challenge Tank as it is. NYWD would not receive any grant funds from the DWSRF. The Challenge Tank is not repairable, so the tank would continue to leak water and the wood would continue to decay, and the tank would eventually collapse catastrophically. This

would result in major water losses and constitute a hazard to human life. The No-project Alternative is not acceptable for these reasons.

Water Service Meters Replacement Project

Replacing Meters with Same Technology (i.e., No Smart Meters)

This alternative consists of replacing the existing mechanical (non-digital) meters with similar meters. This alternative has similar potential environmental impacts of the proposed project because it involves the same ground disturbance and construction activities. The replacement of leaking meters would address the loss of water at leaking meters. However, these meters would continue to require NYWD staff to read meter data visually. Furthermore, such meters do not meet the goals of improving flow metering data collection and detecting leaks at service hookup locations. Under this alternative, the SWRCB may or may not award the NYWD with grant money, because not all water conservation and planning goals would be met. This alternative is not acceptable for these reasons.

No Project Alternative

The No-project Alternative retains and uses the existing service meters. The No Action Alternative would have no impact on biological, cultural, or other environmental resources. However, the existing service meters are not reparable, so some meters would continue to malfunction or leak water. This would result in the continuance of losses of water supply and of income for NYWD, as well as the need to read meter data visually by staff. The continuation of water losses do not meet State standards for the reduction of water consumption and water losses. Water conservation is required by State laws (Assembly Bill 1668 and Senate Bill 606). Furthermore, no additional information is retrieved electronically, such as the detection of leaks or illicit service connections. Under the No Action Alternative, the SWRCB would not award the NYWD with grant money. Although it is possible NYWD may find alternate sources of funding for the project, for the purposes of this Initial Study, the consequences of the SWRCB not providing funding for the Proposed Action would result in no construction of the project. The No-project Alternative is not acceptable for these reasons.

ENVIRONMENTAL SETTING

Challenge Tank Replacement Project and Water Service Meters Replacement Project

The project areas are within the Northern High Sierra Nevada geographic subregion, which is contained within the Sierra Nevada geographic subdivision of the larger California Floristic Province (Baldwin et al. 2012). The project areas are at the boundary of Climate Zone 7, California's Foothill Pine Belt, and Climate Zone 2b: Warmer-Summer Intermountain Climate (Brenzel 2012). Zone 7 has a Mediterranean-type climate, characterized by distinct seasons of hot, dry summers and wet, moderately cold winters. Zone 2B experiences longer and colder winters.

The topography of the Challenge Tank project area is moderately sloping. The elevation ranges from approximately 2,710 to 2,730 feet above mean sea level (msl). The elevation of the floor of the tank is 2,712 feet msl. The Challenge Tank Project Area is located within the Yuba River watershed, and is located within the Plumas National Forest in mixed hardwood / conifer forest.

The topography of the Water Service Meters Replacement Project Area is mountainous and highly variable. The elevation ranges from approximately 1,486 feet to 2,850 feet above msl. The project area is located within the watersheds of the North Yuba River, Dry Creek, and South Fork Feather River. The Water Service Meters Replacement Project Area is located partially within the planning boundaries of the Plumas National Forest.

EVALUATION OF ENVIRONMENTAL IMPACTS

This section identifies the environmental impacts of this project by answering questions from Appendix G of the CEQA Guidelines, the Environmental Checklist Form. The analyses take in to account the entire action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational, impacts.

Impacts are categorized as follows:

- **Potentially Significant Impact** is appropriate if there is substantial evidence that an effect is significant, or where the established threshold has been exceeded. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) may be required.
- **Less Than Significant with Mitigation Incorporated** applies where the incorporation of mitigation measures would reduce an effect from Potentially Significant Impact to a Less Than Significant Impact. Mitigation measures are prescribed to reduce the effect to a less than significant level.
- **Less Than Significant** applies when the project will affect or is affected by the environment, but based on sources cited in the report, the impact will not have an adverse effect. For the purpose of this report, beneficial impacts are also identified as less than significant. The benefit is identified in the discussion of impacts, which follows each checklist category.
- A **No Impact** answer is adequately supported if referenced information sources show that the impact simply does not apply to projects like the one involved. A 'No Impact' answer is explained where it is based on project-specific factors as well as general standards.

1. AESTHETICS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

DISCUSSION

Challenge Tank Replacement Project

The setting is rural with small communities surrounded by the undeveloped land and the Plumas National Forest. Where not obscured by tall trees, forested valleys and mountains can be seen in all directions. The project will not introduce a new manmade feature into the viewscape because the project is simply the replacement of an existing water tank.

1 a-d) There are no scenic vistas or historic buildings in the project area or immediate vicinity. There is no designated or eligible State Scenic Highway in the vicinity of the Project. The nearest Scenic Highway is Route 49 from Yuba close to Yuba Summit, which 9.8 miles east of the project area. The nearest wild and scenic river is the Feather River, 11.3 miles to the north. The project will not affect a scenic vista, a scenic highway, or a wild and scenic river. The proposed project does not propose any new development, construction or physical change to the environment that would directly or indirectly result in any impacts to aesthetic resources. The proposed project will not include any new lighting to the subject area and/or otherwise compromise any views.

Water Service Meters Replacement Project

The setting is rural with small communities situated in the foothills of the Sierra Nevada mountains surrounded by undeveloped land and the Plumas National Forest. Where not obscured by tall trees, forested valleys and mountains can be seen in all directions. The project will not introduce a new manmade feature into the viewscape because the project is simply the replacement of existing water service meters.

1 a-d) There are no scenic vistas or historic buildings in the project area or immediate vicinity. There is no designated or eligible State Scenic Highway in the vicinity of the Project. The nearest Scenic Highway is State Route 49 from Yuba to Yuba Summit. The nearest wild and scenic river is the Feather River. The project will not affect a scenic vista, a scenic highway, or a wild and scenic river. The proposed project does not propose any new development, construction or physical change to the environment that would directly or indirectly result in any impacts to aesthetic resources. The proposed project will not include any new lighting to the subject area and/or otherwise compromise any views.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

2. AGRICULTURE AND FORESTRY RESOURCES

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

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

DISCUSSION

Challenge Tank Replacement Project

2a-2e) In the vicinity of the proposed project, there are no special agricultural designations and the land is identified as "Other Land" on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. The proposed tank replacement is located on land leased from the US Forest Service. As there is no farmland in the project area or in the vicinity, no land will be converted to non-farm uses. The project area is not enrolled in a Williamson Act contract; there are no such contracts in Yuba County. The project area occurs on a 0.5-acre parcel which part of a long-term lease with the US Forest Service and is within the Plumas National Forest. The project involves replacing a leaking water tank which was constructed in 1965 and installing a new valve box in place of an existing box. The project will not involve any loss of forest land or conversion of any land to new uses. Only existing infrastructure will be replaced and no new forest land will be impacted.

Water Service Meters Replacement Project

2a-2e) Some lands within the NYWD have special agricultural designations on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. At the water service meter locations, there is no farmland; these locations are urbanized and occur primarily in road rights-of-way. Implementation of the proposed project will not converted farmland to non-farm uses. The project area does

not have Williamson Act contract; there are no such contracts in Yuba County. The project involves replacing aging water service meters with new smart meters. The project will not involve any loss of forest land or conversion of any land to new uses. Only existing infrastructure will be replaced and no new farm or forest land will be impacted.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

3. AIR QUALITY

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

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☒
b) Violate any air quality standard or result in a cumulatively considerable net increase in an existing or projected air quality violation?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in substantial emissions (such as odors or dust) adversely affecting a substantial number of people?	☐	☐	☒	☐

SETTING

Challenge Tank Replacement Project and Water Service Meters Replacement Project

The proposed projects are located within the Sacramento Valley Air Basin which includes the counties of Butte, Colusa, Glenn, Sacramento, Shasta, Sutter, Tehama, Yolo, and Yuba, and parts of Placer and Solano counties. The Sacramento Valley Air Basin is bounded on the south by the San Joaquin Valley Air Basin, on the west by the Coast Range, on the north by the Cascade Range, and on the east by the Sierra Nevada. This basin is divided into nine air districts; the Feather River Air Quality Management District (FRAQMD) regulates air quality in the portion of this basin that comprises Yuba County and the project area. FRAQMD (2010) summarizes the air quality setting in Yuba counties as follows:

“Summer conditions are typically characterized by high temperatures and low humidity, with prevailing winds from the south. Summer temperatures average approximately 90 F during the day and 50 F at night. Winter conditions are characterized by occasional rainstorms interspersed with stagnant and sometimes foggy weather. Winter daytime temperatures average in the low 50s and nighttime temperatures average in the upper 30s. Rainfall occurs mainly from late October to early May, averaging 17.2 inches per year, but varies significantly each year. In addition to prevailing wind patterns that control the rate of dispersion of local pollutant emissions, Yuba and Sutter counties experience two types of inversions that affect the air quality. The first type of inversion layer contributes to photochemical smog problems by confining pollution to a shallow layer near the ground. This occurs in the summer, when sinking air forms a ‘lid’ over the region. The second type of inversion occurs when the air near the ground cools while the air aloft remains warm. These inversions occur during winter nights and can cause localized air pollution ‘hot spots’ near emission sources because of poor dispersion.” (FRAQMD 2010).

Construction and operational activities from any land use project can generate air pollutants and greenhouse gasses. This assessment estimated the types and quantities of air emissions associated with construction and operation of the proposed projects on both the daily maximum and annual average levels. Emissions were calculated using the California Emissions Estimator Model (CalEEMod)®, Version 2016.3.2 (California Air Pollution Control Officers Association, 2017). Model output and reports from CalEEMod® are provided in the air quality assessments by Natural Investigations (2020). This assessment then determined if project emissions would cause a significant air quality impact by comparison to established air quality thresholds.

DISCUSSION

Challenge Tank Replacement Project

3a) FRAQMD implements the following relevant plans:

- Sacramento Federal Nonattainment Area 8-hour Ozone NAAQS State Implementation Plan
- 2018 Northern Sacramento Valley Planning Area Triennial Air Quality Attainment Plan
- SB 656 PM10 Reduction Measures
- PM2.5 NAAQS State Implementation Plan

FRAQMD screens project via the CEQA Guidelines as well as their adopted Thresholds of Significance. FRAQMD has established the following project-level thresholds to define substantial contribution for both operational and construction emissions: ROG of 25 pounds /day; NOx of 25 pounds /day; or PM10 of 80 pounds /day. Projects that generate less than 3,000 metric tons CO_{2e} per year are assumed to have a less than significant impact on GHG emissions.

A project would conflict with applicable air quality plans if it generated significant quantities of ozone, particulate matter (PM10 or PM2.5), toxins, odors, or if it exceeded the project-level thresholds established by FRAQMD. Air emissions modeling performed for this project demonstrates that the project, in both the construction phase and the operational phase, will not generate significant quantities of ozone or particulate matter and does not exceed the project-level thresholds established by FRAQMD. Furthermore, the project, in both the construction phase and the operational phase, will not generate odors or toxins. The District requires that all projects with a construction phase within Yuba County submit a completed Fugitive Dust Control Plan prior to beginning work and review the FRAQMD Rules and Regulations Statement for New Development. NYWD will prepare and submit a Fugitive Dust Control Plan prior to beginning work. Therefore, implementation of the project will have no impact upon implementation of the applicable air quality plans.

3b) FRAQMD has established the following project-level thresholds to define substantial contribution for both operational and construction emissions: ROG of 25 pounds /day; NOx of 25 pounds /day; or PM10 of 80 pounds /day. Projects that generate less than 3,000 metric tons CO_{2e} per year are assumed to have a less than significant impact on GHG emissions. FRAQMD does not have adopted thresholds for other air pollutants, so we used thresholds from the nearest applicable air quality management district, primarily the Sacramento Metropolitan Air Quality Management District and San Joaquin Valley Air Pollution Control District. A comparison of project emissions, as modeled by CalEEMod, with the thresholds of significance indicates that project emissions are less than significant for both the construction and operational phases. Also, the project, in both the construction and operational phases, has annual emissions of greenhouse gasses well below the threshold annual quantity of 3,000 CO_{2e}. Implementation of the project will have a less than significant cumulative impact upon any criteria air pollutant.

3c) Those who are sensitive to air pollution consist of children, the elderly, and persons with preexisting respiratory, immune, or cardiovascular illness. A sensitive receptor is typically a location that houses or attracts these sensitive people; examples include hospitals, day care centers, parks, residential areas, convalescent facilities, and schools. No sensitive receptors exist within the project area. The closest sensitive receptors are residences, the closest of which are over 750 feet from the project boundary to the west in the town of Challenge. The project will not emit significant concentrations of air pollutants. The project does not emit odors or toxic substances. Therefore, the project will have a less than significant impact upon sensitive receptors.

3d) Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, schools, etc. warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, worksites, and commercial areas. Two situations create

a potential for odor impact. The first occurs when a new odor source is located near an existing sensitive receptor. The second occurs when a new sensitive receptor locates near an existing source of odor.

The project is not within the project screening distance (1 to 2 miles) of any facility listed by FRAQMD as odor producing (wastewater treatment plant, landfill, transfer station, chemical manufacturing, feed lot, etc.). Implementation of the proposed project will not locate sensitive receptors closer to an odor generator. No sensitive receptors exist in the project area. The closest sensitive receptors are residences, the closest of which are over 750 feet away from the project boundary. The project will not emit significant concentrations of air pollutants. The project does not emit odors or toxic substances. Therefore, the project will have a less than significant impact of odors or other emissions affecting people.

Comparison of Daily Construction Emissions Impacts with Thresholds of Significance

Criteria Pollutants	Project Emissions unmitigated (pounds/day)	FRAQMD Threshold (pounds/day)	BAAQMD Threshold (pounds/day)	Significance
ROG (VOC)	1.6 (summer)	25	n/a	Less than significant
NO _x	17.3	25	n/a	Less than significant
CO	12.6	No threshold established	No threshold established	Less than significant
SO _x	0.02	No threshold established	No threshold established	Less than significant
Exhaust PM ₁₀	0.9	80	n/a	Less than significant
Exhaust PM _{2.5}	0.8	No threshold established	54	Less than significant
Greenhouse Gasses (CO ₂ e)	2,295	No threshold established	No threshold established	Less than significant

Comparison of Daily Operational Emissions Impacts with Thresholds of Significance

Criteria Pollutants	Project Emissions unmitigated (pounds/day)	FRAQMD Threshold (pounds/day)	BAAQMD Threshold (pounds/day)	Significance
ROG (VOC)	< 1	25	n/a	Less than significant
NO _x	< 1	25	n/a	Less than significant
CO	< 1	No threshold established	No threshold established	Less than significant
SO _x	< 1	No threshold established	No threshold established	Less than significant
PM ₁₀ (total)	< 1	80	n/a	Less than significant
PM _{2.5} (total)	< 1	No threshold established	54	Less than significant
Greenhouse Gasses (CO ₂ e)	< 100	No threshold established	No threshold established	Less than significant

Note: Project emissions in the operational phase are so low because no energy is consumed and no machinery is used to operate the gravity-fed tank.

Comparison of Annual Construction Emissions Impacts with Thresholds of Significance

Criteria Pollutants	Project Emissions unmitigated (tons/year)	FRAQMD Threshold (tons/year)	SJVAPCD Threshold (tons/year)	Significance
ROG (VOC)	0.05	4.5	n/a	Less than significant
NO _x	0.474	4.5	n/a	Less than significant
CO	0.39	No threshold established	100	Less than significant
SO _x	< 0.01	No threshold established	27	Less than significant
PM ₁₀	0.03	No threshold established	15	Less than significant
PM _{2.5}	0.03	No threshold established	15	Less than significant
Greenhouse gasses (as CO ₂ or methane)	< 1	3,000	n/a	Less than significant

Comparison of Annual Operational Emissions Impacts with Thresholds of Significance

Criteria Pollutants	Project Emissions (tons/year)	FRAQMD Threshold (tons/year)	SJVAPCD Threshold (tons/year)	Significance
ROG (VOC)	< 1	4.5	n/a	Less than significant
NO _x	< 1	4.5	n/a	Less than significant
CO	< 1	No threshold established	100	Less than significant
SO _x	< 1	No threshold established	27	Less than significant
PM ₁₀	< 1	No threshold established	15	Less than significant
PM _{2.5}	< 1	No threshold established	15	Less than significant
Greenhouse gasses (as CO ₂ or methane)	< 100	3,000	n/a	Less than significant

Note: Project emissions in the operational phase are so low because no energy is consumed and no machinery is used to operate the gravity-fed tank.

Federal General Conformity Determination

In accordance with the FCAA and the CCAA, CARB designates areas of the State as attainment, nonattainment, or unclassified with respect to applicable standards. An “attainment” designation for an area signifies that pollutant concentrations do not violate the applicable standard in that area. A “nonattainment” designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria. The CCAA divides nonattainment status into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The USEPA and the CARB designate air basins where ambient air quality standards are exceeded as “nonattainment” areas. If standards are met, the area is designated as an “attainment” area. If there is inadequate or inconclusive data to make a definitive attainment designation, they are considered “unclassified.”

The current attainment designations for the FRAQMD are shown in the following table. The FRAQMD is designated as nonattainment for ozone and particulate matter. The following table compares project emissions with the federal *de minimis* and the local air basin thresholds of significance, where available. Project emissions are well below the federal *de minimis* levels for all pollutants. Therefore, the project conforms to federal air quality standards.

FRAQMD Attainment Statuses

Pollutant	State Status	National Status
1-hour Ozone	South Sutter = Serious nonattainment; Remainder of District = Nonattainment-Transitional	No Standard
8-hour Ozone	Nonattainment-Transitional	South Sutter = Serious nonattainment; Elevations over 2,000 ft in Sutter Buttes = Moderate nonattainment; Remainder of District = unclassified / attainment
Carbon monoxide	Sutter County = Attainment Yuba County = Unclassified	Unclassified/attainment
Nitrogen dioxide	Attainment	Unclassified/attainment
Sulfur dioxide	Attainment	Unclassified
Sulfates	Attainment	Unclassified
PM ₁₀	Nonattainment	Unclassified/attainment
PM _{2.5}	Attainment	Nonattainment
Lead	Attainment	Unclassified/attainment

(Sources: California Air Resources Board 2019; FRAQMD 2010; USEPA 2019)

Conformity Determination Summary

Pollutant	Federal Status (Attainment, Nonattainment, etc.)	Non- attainment Rates (marginal, serious, etc.)	<i>De minimis</i> (tons/year)	Threshold of Significance for Project Air Basin (tons/year)	Estimated Project Construction Emissions (tons/year)	Estimated Project Operation Emissions (tons/year)
Ozone (O ₃)	South Sutter Co. Nonattainment	Serious	50	not yet established	n/a	n/a
Carbon Monoxide (CO)	Unclassified / attainment	All areas	100	not yet established	0.5	0.6
Oxides of Nitrogen (NO _x)	Attainment	n/a	100	not yet established	0.5	0.2
Reactive Organic Gasses (ROG)	Unclassified	n/a	100	not yet established	0.3	0.2
Volatile Organic Compounds (VOC)	Unclassified	n/a	100	not yet established	n/a	n/a
Lead (Pb)	Unclassified / attainment	All nonattainment areas	25	not yet established	n/a	n/a
Particulate Matter < 2.5 microns (PM _{2.5})	Nonattainment, moderate	moderate	100	not yet established	0.03	0.04
		serious	70			
Particulate Matter < 10 microns (PM ₁₀)	Unclassified / attainment	moderate	100	not yet established	0.04	.16
		serious	70			
Sulfur Dioxide (SO ₂)	Attainment	All maintenance areas	100	not yet established	< 0.1	< 0.1

Water Service Meters Replacement Project

3a) Air emissions modeling performed for this project demonstrates that the project, in both the construction phase and the operational phase, will not generate significant quantities of ozone or particulate matter and does not exceed the project-level thresholds established by FRAQMD. Furthermore, the project, in both the construction phase and the operational phase, will not generate odors or toxins. The District requires that all projects with a construction phase within Yuba County submit a completed Fugitive Dust Control Plan prior to beginning work and review the FRAQMD Rules and Regulations Statement for New Development. NYWD will prepare and submit a Fugitive Dust Control Plan prior to beginning work. Therefore, implementation of the project will have no impact upon implementation of the applicable air quality plans.

3b) A comparison of project emissions, as modeled by CalEEMod, with the thresholds of significance indicates that project emissions are less than significant for both the construction and operational phases. Also, the project, in both the construction and operational phases, has annual emissions of greenhouse gasses well below the threshold annual quantity of 3,000 CO₂e. Although the Proposed Action would result in a small construction-related GHG emission, improved operations would offset the Project's contribution to climate change. A net reduction in GHG will occur from both water conservation (reducing energy required for production), and from the reduction in emissions associated with drive-by meter reading routes. Therefore, there are no cumulative adverse effects associated with GHG emissions.

3c) Some sensitive receptors exist near individual water service meter sites, primarily residences. The project will not emit significant concentrations of air pollutants in the construction phase because the individual project footprints are only two square feet and a dust control plan will be implemented. The operational phase of the project does not emit odors or toxic substances or any emissions at all. Therefore, the project will have a less than significant impact upon sensitive receptors.

3d) Most individual service meter sites are not within the project screening distance (1 to 2 miles) of any facility listed by FRAQMD as odor producing (wastewater treatment plant, landfill, transfer station, chemical manufacturing, feed lot, etc.). Some sensitive receptors exist in the project area – primarily residences. Implementation of the proposed project will not locate sensitive receptors closer to an odor generator. The project will not emit significant concentrations of air pollutants. The project does not emit any odors or toxic substances. Therefore, the project will have a less than significant impact of odors or other emissions affecting people.

Comparison of Daily Construction Emissions Impacts with Thresholds of Significance

Criteria Pollutants	Project Emissions unmitigated (pounds/day)	FRAQMD Threshold (pounds/day)	BAAQMD Threshold (pounds/day)	Significance
ROG (VOC)	< 2	25	n/a	Less than significant
NO _x	17.3	25	n/a	Less than significant
CO	12.6	No threshold established	No threshold established	Less than significant
SO _x	0.02	No threshold established	No threshold established	Less than significant
Exhaust PM ₁₀	0.9	80	n/a	Less than significant
Exhaust PM _{2.5}	0.8	No threshold established	54	Less than significant
Greenhouse Gasses (CO ₂ e)	2,295	No threshold established	No threshold established	Less than significant

Comparison of Daily Operational Emissions Impacts with Thresholds of Significance

Criteria Pollutants	Project Emissions unmitigated (pounds/day)	FRAQMD Threshold (pounds/day)	BAAQMD Threshold (pounds/day)	Significance
ROG (VOC)	< 1	25	n/a	Less than significant
NO _x	< 1	25	n/a	Less than significant
CO	< 1	No threshold established	No threshold established	Less than significant
SO _x	< 1	No threshold established	No threshold established	Less than significant
PM ₁₀ (total)	< 1	80	n/a	Less than significant
PM _{2.5} (total)	< 1	No threshold established	54	Less than significant
Greenhouse Gasses (CO ₂ e)	< 100	No threshold established	No threshold established	Less than significant

Note: Project emissions in the operational phase are so low because no energy is consumed and no machinery is used to operate the service meters.

Comparison of Annual Construction Emissions Impacts with Thresholds of Significance

Criteria Pollutants	Project Emissions unmitigated (tons/year)	FRAQMD Threshold (tons/year)	SJVAPCD Threshold (tons/year)	Significance
ROG (VOC)	0.05	4.5	n/a	Less than significant
NO _x	0.474	4.5	n/a	Less than significant
CO	0.39	No threshold established	100	Less than significant
SO _x	< 0.01	No threshold established	27	Less than significant
PM ₁₀	0.03	No threshold established	15	Less than significant
PM _{2.5}	0.03	No threshold established	15	Less than significant
Greenhouse gasses (as CO ₂ or methane)	< 1	3,000	n/a	Less than significant

Comparison of Annual Operational Emissions Impacts with Thresholds of Significance

Criteria Pollutants	Project Emissions (tons/year)	FRAQMD Threshold (tons/year)	SJVAPCD Threshold (tons/year)	Significance
ROG (VOC)	< 1	4.5	n/a	Less than significant
NO _x	< 1	4.5	n/a	Less than significant
CO	< 1	No threshold established	100	Less than significant
SO _x	< 1	No threshold established	27	Less than significant
PM ₁₀	< 1	No threshold established	15	Less than significant
PM _{2.5}	< 1	No threshold established	15	Less than significant
Greenhouse gasses (as CO ₂ or methane)	< 100	3,000	n/a	Less than significant

Note: Project emissions in the operational phase are so low because no energy is consumed and no machinery is used to operate the service meters.

Federal General Conformity Determination

The current attainment designations for the FRAQMD are shown in the following table. The FRAQMD is designated as nonattainment for ozone and particulate matter. The following table compares project emissions with the federal *de minimis* and the local air basin thresholds of significance, where available. Project emissions are well below the federal *de minimis* levels for all pollutants. Therefore, the project conforms to federal air quality standards.

Conformity Determination Summary

Pollutant	Federal Status (Attainment, Nonattainment, etc.)	Non- attainment Rates (marginal, serious, etc.)	<i>De minimis</i> (tons/year)	Threshold of Significance for Project Air Basin (tons/year)	Estimated Project Construction Emissions (tons/year)	Estimated Project Operation Emissions (tons/year)
Ozone (O ₃)	South Sutter Co. Nonattainment	Serious	50	not yet established	n/a	n/a
Carbon Monoxide (CO)	Unclassified / attainment	All areas	100	not yet established	0.5	0.6
Oxides of Nitrogen (NO _x)	Attainment	n/a	100	not yet established	0.5	0.2
Reactive Organic Gasses (ROG)	Unclassified	n/a	100	not yet established	0.3	0.2
Volatile Organic Compounds (VOC)	Unclassified	n/a	100	not yet established	n/a	n/a
Lead (Pb)	Unclassified / attainment	All nonattainment areas	25	not yet established	n/a	n/a
Particulate Matter < 2.5 microns (PM _{2.5})	Nonattainment, moderate	moderate	100	not yet established	0.03	0.04
		serious	70			
Particulate Matter < 10 microns (PM ₁₀)	Unclassified / attainment	moderate	100	not yet established	0.04	.16
		serious	70			
Sulfur Dioxide (SO ₂)	Attainment	All maintenance areas	100	not yet established	< 0.1	< 0.1

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

AIR-1: Implement FRAQMD Standard Mitigation Measures

Even if the operational emissions of a project do not exceed the operational thresholds, and the construction emissions of NOx or ROG do not exceed the 25 pounds/day averaged over the length of the project or the PM10 emissions do not exceed 80 pounds /day, FRAQMD recommends the following construction phase Standard Mitigation Measures:

1. Implement the Fugitive Dust Control Plan
2. Construction equipment exhaust emissions shall not exceed FRAQMD Regulation III, Rule 3.0, Visible Emissions limitations (40 percent opacity or Ringelmann 2.0).
3. The contractor shall be responsible to ensure that all construction equipment is properly tuned and maintained prior to and for the duration of onsite operation.
4. Limiting idling time to 5 minutes - saves fuel and reduces emissions. (State idling rule: commercial diesel vehicles - 13 CCR Chapter 10 Section 2485 effective 02/ 01/ 2005; off road diesel vehicles - 13 CCR Chapter 9 Article 4.8 Section 2449 effective 05/01/2008)
5. Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators.
6. Develop a traffic plan to minimize traffic flow interference from construction activities. The plan may include advance public notice of routing, use of public transportation, and satellite parking areas with a shuttle service. Schedule operations affecting traffic for off-peak hours. Minimize obstruction of through-traffic lanes. Provide a flag person to guide traffic properly and ensure safety at construction sites.
7. Portable engines and portable engine-driven equipment units used at the project work site, with the exception of on-road and off-road motor vehicles, may require California Air Resources Board (ARB) Portable Equipment Registration with the State or a local district permit. The owner/operator shall be responsible for arranging appropriate consultations with the ARB or the District to determine registration and permitting requirements prior to equipment operation at the site.

With implementation of the FRAQMD Standard Mitigation Measures, the projects will have a less-than significant impact upon air quality.

4. BIOLOGICAL RESOURCES

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

SETTING

A biological resources assessment was prepared for both projects and is presented in Appendix 1:

- Natural Investigations Co., Inc. 2020. Biological Resources Assessment for the North Yuba Water District Challenge Tank Replacement Project and the Water Service Meters Replacement Project, Yuba and Butte Counties, California. Prepared for State Water Resources Control Board, Division of Financial Assistance.

Challenge Tank Replacement Project

The project area is within the Northern High Sierra Nevada geographic subregion, which is contained within the Sierra Nevada geographic subdivision of the larger California Floristic Province (Baldwin et al. 2012). The project area and vicinity is at the boundary of Climate Zone 7, California's Foothill Pine Belt, and Climate Zone 2b: Warmer-Summer Intermountain Climate (Brenzel 2012). Zone 7 has a Mediterranean-type climate, characterized by distinct seasons of hot, dry summers and wet, moderately cold winters. Zone 2B experiences longer and colder winters. The topography of the project area is moderately sloping. The elevation ranges from approximately 2,710 to 2,730 feet above msl. The elevation of the floor of the tank is 2,712 feet. The project area is located within the Yuba River watershed.

The project area contains two terrestrial vegetation communities: mixed hardwood/conifer forest; and ruderal/developed. Ruderal/disturbed habitats consisted of disturbed or converted natural habitat that is now either in ruderal state, graded, or urbanized with gravel roads, or structure and utility placement. Vegetation

within this habitat type consists primarily of nonnative weedy or invasive species or ornamental plants lacking a consistent community structure. This habitat type provides limited resources for wildlife and is utilized primarily by species tolerant of human activities. The disturbed and altered condition of these lands greatly reduces their habitat value and ability to sustain rare plants or diverse wildlife assemblages. Mixed hardwood/conifer forest habitat consisted of regenerating conifer forest (Jeffrey pine, ponderosa pine, incense cedar) and occasional black oaks. The understory consisted of coffeeberry and chamise and annual grasses.

The following wildlife habitat types occur within the project area and immediate vicinity, as classified by CDFW's Wildlife Habitat Relationship System: "Montane Hardwood-Conifer", "Urban", and "Barren". No critical habitat for any federally-listed species occurs within the project area. No special-status species were detected in the project area during the biological survey. The CNDDDB was queried and any reported occurrences of special-status species were plotted in relation to the project area boundary using GIS software (see Exhibits). The CNDDDB reported no special-status habitats within the project area. The CNDDDB reported no special-status habitats in a 10-mile radius surrounding the project area.

Within a 10-mile buffer of the project area boundary, the CNDDDB reported 15 special-status species plant species and 13 special-status animal species. A USFWS species list was generated online using the USFWS' IPaC Trust Resource Report System. The following listed species should be considered in the impact assessment: California red-legged frog (*Rana draytonii*), Federally Threatened (FT); Delta smelt (*Hypomesus transpacificus*), FT; Layne's Butterweed (*Senecio layneae*), FT.

Water Service Meters Replacement Project

The project area is within the Northern High Sierra Nevada geographic subregion. The project area and vicinity is at the boundary of Climate Zone 7, California's Foothill Pine Belt and Climate Zone 2b: Warmer-Summer Intermountain Climate (Brenzel 2012). The topography of the project area is mountainous and highly variable. The elevation ranges from approximately 1,486 feet to 2,850 feet above msl. The project area is located within the North Yuba River, the Dry Creek, and the South Fork Feather River watersheds. The project area is located adjacent to the Plumas National Forest.

The project area consisted primarily of ruderal or urbanized terrestrial vegetation communities; other meter box locations were barren. Ruderal/urbanized habitats consisted of disturbed or converted natural habitat that is now either in ruderal state, graded, or urbanized with gravel roads, or structure and utility placement. Vegetation within this habitat type consists primarily of nonnative weedy or invasive species or ornamental plants lacking a consistent community structure. This habitat type is utilized primarily by species tolerant of human activities. The disturbed and altered condition of these lands greatly reduces their habitat value and ability to sustain rare plants.

Some meter box locations were located in natural forest communities, such as mixed hardwood/conifer forest. This regenerating forest habitat consisted of Jeffrey pine (*Pinus jeffreyi*), incense cedar (*Calocedrus decurrens*), ponderosa pine (*Pinus ponderosa*), Douglas Fir (*Pseudotsuga menziesii*) and black oaks (*Quercus kelloggii*). The understory consisted of California blackberry (*Rubus ursinus*), chamise (*Adenostoma fasciculatum*), coffee berry (*Frangula californica*), poison oak (*Toxicodendron diversilobum*) and some annual grasses.

The project area contains the following wildlife habitat types classified by DFW's Wildlife Habitat Relationship System: "Montane Hardwood-Conifer", "Douglas Fir", "Montane Riparian", "Urban", and "Barren". The primary wildlife habitat was "Urban" and "Barren". These habitat types provides limited resources for wildlife and is utilized primarily by species tolerant of human activities. The disturbed and altered condition of these lands greatly reduces their habitat value and ability to sustain rare species or diverse wildlife assemblages. No critical habitat for any federally-listed species occurs within the project area or in

the NYWD Service Area. The nearest critical habitat is 2 miles to the southeast (California red-legged frog), near New Bullards Bar Reservoir. The CNDDDB reported no special-status habitats within the project area. The CNDDDB reported no special-status habitats in a 10-mile radius outside of the project area.

The CNDDDB reported no special-status species with the project area. Within a 10-mile buffer of the project area boundary, the CNDDDB reported 19 special-status plant species occurrences and 18 special-status animal species.. A USFWS species list was generated online using the USFWS' IPaC Trust Resource Report System. The following listed species should be considered in the impact assessment: California red-legged frog (*Rana draytonii*), Federally Threatened; Sierra Nevada yellow-legged frog (*Rana sierrae*) Federally Endangered; Delta smelt (*Hypomesus transpacificus*), Federally Threatened; Vernal pool fairy shrimp (*Branchinecta lynchi*) Federally Endangered; and Layne's Butterweed (*Senecio layneae*), Federally Threatened.

DISCUSSION

Challenge Tank Replacement Project

4a) No special-status species were detected in the project area during the biological survey. No regionally-occurring special-status species were determined to have a medium or high potential to occur within the project area. No impacts to listed species or special-status species are expected from implementation of the proposed project. This is due primarily to the fact that the project area is already disturbed or developed, and is not near any natural water resources.

Special-status bird species were reported in databases (CNDDDB and USFWS) in the vicinity of the project area. The agricultural fields and canals, and adjacent trees and utility poles, contain suitable nesting habitat for various bird species. However, no nests were observed during the field survey. If construction activities are conducted during the nesting season, nesting birds could be directly impacted by tree removal and indirectly impacted by noise, vibration, and other construction-related disturbance. Therefore, Project construction is considered a potentially significant adverse impact to nesting birds before mitigation.

4b) The project area is not within any designated listed species' critical habitat. The project area contains no riparian habitat or other special-status habitats. The CNDDDB reported no special-status habitats within the project area. The CNDDDB reported no special-status habitats in a 10-mile radius surrounding the project area. The proposed project will have no impact upon riparian habitat or other special-status habitats.

Because the project area is not within a critical habitat, and because no sensitive habitats will be impacted, the Project will have No Effect upon federally-designated critical habitat.

4c) A formal assessment for the presence of potentially-jurisdictional water resources within the project area was also conducted during the field survey. The entire project area has upland features and contains no wetlands or channels (i.e., no waters of the US). The USFWS National Wetland Inventory (see Exhibits) also reported no water features within, or adjacent to, the project area. The proposed project will have no impact upon wetlands. To address potential indirect impacts to receiving water bodies from pollution during construction of the proposed project, an erosion control plan and spill control plan will be implemented.

4d) No designated wildlife corridors exist within or near the project area, but the area is undisturbed forest and allows for unrestricted animal movement. In the vicinity, some barriers to movement exist, such as roadways and barbed wire fences. No fishery resources exist in or near the project area. The nearest fishery is Costa Creek, over 1 miles to the west. The project area is not within, or near, an Essential Fish Habitat. The nearest Essential Fish Habitat is the North Yuba River, which is 3 miles to the southeast of the project area. Because the project will not destroy any new habitat, but simply replace existing infrastructure, animal

movement will not be impaired. Implementation of the project will not 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.

4e,f) No relevant local policies or ordinances were identified. Although the project area is surrounded by forest, the project area itself has no trees, so tree ordinances do not apply. The project area is not within the coverage area of any adopted Habitat Conservation Plan or Natural Community Conservation Plan. No impacts to habitat plans will occur from project implementation.

Water Service Meters Replacement Project

4a) No special-status species were detected in the project area during the biological survey by Dr. G. O. Graening conducted on October 18, 2019. No regionally-occurring special-status species were determined to have a medium or high potential to occur within the project area. No impacts to listed species or special-status species are expected from implementation of the proposed project. This is due primarily to the fact that the meter box locations are already disturbed or developed, and are not directly adjacent to any water resources or sensitive habitats.

4b) The project area contains no riparian habitat or other special-status habitats. The CNDDB reported no special-status habitats within the project area. The CNDDB reported no special-status habitats in a 10-mile radius outside of the project area. Project implementation will not destroy any natural habitats because the project just replaces existing infrastructure. The proposed project will have no impact upon riparian habitat or other special-status habitats.

Because the project area is not within a critical habitat, and because no sensitive habitats will be impacted, the Project will have No Effect upon federally-designated critical habitat.

4c) A formal assessment for the presence of potentially-jurisdictional water resources within the project area was also conducted during the field survey. The entire project area has upland features and contains no water features and no waters of the U.S. Project construction would not directly impact any surface water bodies. The area of disturbance at each service box location from project implementation is anticipated to be only two cubic feet (1 foot wide by 2 foot long by 1 foot deep). To address potential indirect impacts to receiving water bodies from pollution during construction of the proposed project, erosion control measures will be implemented. This will consist of covering spoils with a plastic sheet and encircling the work area with fiber rolls. There will be no potentially-significant impacts to water resources.

4d) No designated wildlife corridors exist within or near the project area, but the region contains large open spaces and forests which allow animal movement. Heavily trafficked roads and fencelines function as semi-permeable barriers. No fishery resources exist in the project area, but fish-bearing streams occur in the vicinity. Because the project will not destroy any new habitat, but simply replace existing infrastructure, animal movement will not be impaired and nurseries will not be disturbed.

4e,f) No relevant local policies or ordinances were identified. Implementation of the project does not require the removal of trees, so any municipal tree ordinances do not apply. The project area is not within the coverage area of any adopted Habitat Conservation Plan or Natural Community Conservation Plan. No impacts to habitat plans will occur from project implementation.

MITIGATION

Challenge Tank Replacement Project

Bio-1: Pre-construction Special-status Species and Nesting Bird Survey.

Because special-status species that occur in the vicinity could migrate onto the project area between the time that the field survey was completed and the start of construction, a pre-construction survey for special-status species should be performed by a qualified biologist to ensure that special-status species are not present. If any listed species are detected, construction should be delayed, and the appropriate wildlife agency (CDFW and/or USFWS) should be consulted and project impacts and mitigation reassessed. With the implementation of this mitigation measure, adverse impacts upon special-status species would be reduced to a less-than-significant level.

If construction activities would occur during the nesting season (usually March to September), a pre-construction survey for the presence of special-status bird species or any nesting bird species should be conducted by a qualified biologist within 500 feet of proposed construction areas. If active nests are identified in these areas, CDFW and/or USFWS should be consulted to develop measures to avoid “take” of active nests prior to the initiation of any construction activities. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest site. With the implementation of this mitigation measure, adverse impacts upon special-status bird species and nesting birds would be reduced to a less-than-significant level.

Because no federally-listed species occur in the project area, and because of the avoidance measures that will be implemented, the Project will have No Effect upon federally-listed species.

Water Service Meters Replacement Project

No mitigation measures are necessary.

Because no federally-listed species occur in the project area, and because of the avoidance measures that will be implemented, the Project will have No Effect upon federally-listed species.

5. CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 dedicated cemeteries?	☐	☒	☐	☐

SETTING

Challenge Tank Replacement Project and Water Service Meters Replacement Project

The following cultural resources assessments were prepared for this project:

- Natural Investigations Company. 2019. Cultural Resources Inventory and Effects Assessment for the North Yuba Water District Challenge Water Tank Replacement Project, Yuba County, California. Prepared for North Yuba Water District. 49 pp.
- Natural Investigations Company. 2019. Cultural Resources Inventory and Effects Assessment for the North Yuba Water District Challenge Water Meter Replacement Project, Butte and Yuba Counties, California. Prepared for North Yuba Water District. 66 pp.

Prehistoric Setting

The prehistoric timeframes in California's north-central Sierra Nevada region include Paleoindian (13,500–8500 B.P. [before present]), Archaic (8500–1000 B.P.), and Late Prehistoric (1000 B.P.–Historic Contact) periods. There is little archaeological evidence of the Paleoindian and Lower Archaic periods, which predate 5,000 years ago. Excavations of a number of archaeological sites in the subsequent periods show changes in distinct artifact types, subsistence orientation, and settlement patterns, and of an established trans-Sierran trade network, that lasted until historic contact in the early 1800s (Natural Investigations Company 2019).

Ethnographic Setting

The Konkow and Nisenan historically occupied the project vicinity (Kroeber 1925, 1929; Riddell 1978; Wilson and Towne 1978; cited in Natural Investigations Company 2019). Konkow (also known as the northwestern Maidu) and Nisenan (also known as the southern Maidu) lands, which nearly coincided with today's boundaries for Butte and Plumas counties, respectively, provided these seasonally mobile hunter-gatherers with an abundance of natural resources. Semi-permanent villages were typically situated along the main watercourses in their territory. Similar to other California Native American groups, the Konkow and Nisenan employed a variety of tools, implements, and enclosures for hunting, fishing, and collecting natural resources. Acorns, of particular importance to the diet, were stored in village granaries before processing with bedrock or portable mortars and pestles.

The traditional culture and lifeways of the Konkow and Nisenan were disrupted in the 1830s with disease epidemics that swept through the densely populated region and decimated native populations. The discovery in 1848 of gold in the heart of Nisenan territory and the ensuing Gold Rush had a devastating impact on the two groups. Surviving Nisenan retreated to the foothills and mountains or labored for the growing ranching, farming, and mining industries. Surviving Konkow were moved to a reservation at Nome Lackee in 1855

(Tehama County) and then many were forcibly marched in 1863 to the Round Valley Reservation (Mendocino County).

Historic Setting

The history of the project region is deeply tied to the Gold Rush era. Mining communities along the rivers blossomed soon after Jonas Spect found gold in June 1848 at Rose's Bar on the Yuba River, approximately 18 miles east of Marysville. Gold was also found in 1848 on Dry Creek near its confluence with the Yuba River. Bullards Bar on the Yuba River was among the numerous mining communities soon established along the Yuba and Feather rivers. It was named for Dr. Bullard, a miner originally from New York. In Butte County, John Bidwell discovered gold in June 1848 on the Middle Fork Feather River, at what is known as Bidwell's Bar, 40 miles north of Marysville. To the northwest, Forbestown (initially Forbes Diggins) on the South Fork Feather River was named after B. F. Forbes, who owned a general merchandise store, and remained a center of mining activities for the next 40 years (Natural Investigations Company 2019).

A number of lumbering camps and sawmills were also established in Yuba County in support of the mining operations and the burgeoning timber industry. Brownsville, named after I. E. Brown, who erected the first sawmill there in 1851, was located on the "Central Turnpike" heading northeast to the mining center of La Porte. Challenge developed around the Challenge Lumber Mill, built circa 1856. In 1874, the mill was purchased by Andrew Martin Leach who also purchased several other sawmills in the area. Leach built a 50-mile flume in 1877 to transport lumber to the Southern Pacific Railroad at Moore's Station (Honcut), and established a 6-mile, narrow-gauge Challenge Railroad in 1884, which operated until 1892. The Challenge lumber mill burned in 1886 and after a series of additional fires at his other mills, heavy winter snows, and substantial borrowing, Leach's empire crumbled (Natural Investigations Company 2019). Straddling the Butte/Yuba county line, Rackerby was settled in 1851 and known as Hansonville until it was renamed in 1892 after William M. Rackerby, a merchant and rancher who had settled in the area in 1884 (Natural Investigations Company 2019).

Networks of ditches provided the water required for mining activities during the Gold Rush and the following years, and many of these ditches became the backbone for agricultural irrigation and municipal and domestic water supplies. The Forbestown Ditch, constructed in the 1850s, is NYWD's main raw water conveyance system, with surface water diverted from the South Fork Feather River. The Wyandotte and Feather River Water Company was organized in 1852 to extend the ditch from Forbestown to the mining camps at Wyandotte, Ophir (Oroville), Bangor, and Honcut. Two years later, the rights were sold to the South Feather Land and Water Company. In 1923, the Oroville Wyandotte Irrigation District (OWID) assumed control of the water rights and distribution systems of the South Feather Land and Water Company, including the Forbestown Ditch. OWID was renamed the South Feather Water and Power Agency (SFWPA) in 2003 and in 2011 conveyed the Forbestown Ditch to NYWD, which was founded in 1952. Serving the communities of Brownsville, Challenge, Forbestown, and Rackerby for more than 150 years, the ditch presently supplies water for domestic use to NYWD's water treatment plant in Forbestown and for agricultural use via a turnout at Costa Creek (Natural Investigations Company 2019).

Portions of the approximately 120,320-acre District are adjacent to or partially overlap areas of the Plumas National Forest. The forest, which contributes to the local economy by providing timber for harvesting and milling into lumber, was established in 1905 by President Theodore Roosevelt. Circa 1908, the Forest Service built a lookout near the top of a pine tree on the summit of Pike County Peak near Challenge (Natural Investigations Company 2019).

Results of Site Research and Survey for the Challenge Tank Project

A literature search completed at the North Central Information Center on September 19, 2019, indicated nine prior surveys had been conducted within a 0.5-mile search radius of the Challenge Tank project site, none of which were within the Challenge Tank project site. No cultural resources have been previously recorded within the Challenge Tank project site, while 11 (four prehistoric and seven historic-era) have been previously recorded within the 0.5-mile radius (Natural Investigations Company 2019).

Archival research indicates the project vicinity was part of the gold mining and lumber region located near Challenge. Historic maps show that the “Marysville and La Porte Road” transected Section 20 by the 1870s, with “Leach’s V-Flume” and “Leach’s Narrow Gauge R.R.” erected from Challenge Mill in the 1880s. Aerial photographs and historic maps indicate the project site remained undeveloped until the existing Challenge water tank was built in the 1960s (Natural Investigations Company 2019).

An intensive-level pedestrian survey of the project site was conducted by Natural Investigations Company archaeologist, Dylan Stapleton, on October 18, 2019. The project site has been disturbed by grading, terracing, and construction of the existing NYWD water tank, underground NYWD valve box and pipeline, continued maintenance area clearing, and access road construction (Natural Investigations Company 2019).

One historic built-environment resource was newly identified during survey of the project site, the Challenge Water Tank built in 1965. The Challenge Water Tank was found through survey evaluation to be not eligible for listing in the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR), and thus does not qualify as a historic property or historical resource. No prehistoric or historic-era archaeological sites, no ethnographic sites, and no other historic-era architectural or built-environment resources were identified during the survey, and none had been previously recorded within the project site. Thus, the project does not have the potential to cause a significant impact on any resource that currently qualifies as a historical resource or is an archaeological resource (Natural Investigations Company 2019). The sensitivity is very low for discovery of archaeological deposits, materials, or features by implementation of the project. The project site is located within a disturbed area that is underlain by bedrock formed millions of years prior to the presence of humans in this region (Natural Investigations Company 2019).

Results of Site Research and Survey for the Water Service Meters Replacement Project

Literature searches completed for Butte County by the Northeast Information Center on September 17, 2019, and for Yuba County at the North Central Information Center September 4, 2019, indicated portions of prior 18 surveys had been conducted within the meter replacement locations, 11 prior studies adjacent to the meter locations, and an additional 52 studies had been completed within a 0.5-mile radius of the meter locations. No cultural resources have been previously recorded within the meter locations in Butte County, while one previously recorded historic-era resource is mapped within the meter locations in Yuba County (P-58-000980, logging camp). Within the 0.5-mile radius outside the project, 37 cultural resources (three prehistoric, one ethnohistoric and 33 historic-era) have been previously recorded in Butte County and 93 (18 prehistoric, 68 historic-era and seven with both prehistoric and historic-era components) in Yuba County. Of these, one historic-era resource in Butte County (P-04-001841, Forbestown Ditch) and one in Yuba County (P-58-002077, Challenge Ranger Station Compound) are located adjacent to but outside the project area and will not be disturbed by the project (Natural Investigations Company 2019).

A systematic survey of the project area was conducted by Natural Investigations Company archaeologist, Phil Hanes, on October 17, 2019. A mixed survey strategy was employed and based on a number of factors, such as the extent of prior disturbance due to installation of existing water meters and pipes, existing roadway grading and fill, and private property development; the proximity of previously recorded resources; the proximity of natural water sources or steep slopes. Areas judged to have a greater cultural resource potential

were surveyed at an intensive level, with pedestrian transects spaced no more than 1 meter apart, while a reconnaissance “windshield” survey was used in areas with a low potential. In addition, survey of numerous areas at an intensive level regardless of cultural resource potential affirmed the merit of the mixed survey strategy. Visible ground surface within the project areas was carefully examined for cultural material (e.g., flaked stone tools, tool-making debris, stone milling tools, or fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., postholes, foundations), or historic-era debris (e.g., metal, glass, ceramics) (Natural Investigations Company 2019).

One previously recorded historic-era logging camp (P-58-000980) was found during survey of the project area in Yuba County to have been destroyed by a residential development. No prehistoric or other historic-era archaeological sites, no ethnographic sites, and no historic-era architectural or built-environment resources were identified during the survey, and none had been previously recorded within the project areas in the two counties. Thus, the project does not have the potential to cause a significant impact on any resource that currently qualifies as a historical resource or is an archaeological resource (Natural Investigations Company 2019). The sensitivity is low for discovery of archaeological deposits, materials, or features by implementation of the project. The project is located within disturbed areas that are underlain by sediments formed millions of years prior to the presence of humans in this region (Natural Investigations Company 2019).

Native American Outreach for the Challenge Tank Project

Natural Investigations Company contacted the Native American Heritage Commission (NAHC), requesting a search of their Sacred Lands File for traditional cultural resources within or near the Challenge project site. The reply from the NAHC, dated September 24, 2019, states that their search was negative for the presence of Native American sacred lands in the immediate vicinity.

By letters dated September 26, 2019, Natural Investigations Company contacted each of the Native American tribes provided by the NAHC, requesting any information regarding sacred lands or other heritage sites that might be impacted by the proposed project.

Native American Outreach for the Water Service Meters Replacement Project

Natural Investigations Company contacted the Native American Heritage Commission (NAHC), requesting a search of their Sacred Lands File for traditional cultural resources within or near the project areas. The reply from the NAHC, dated September 30, 2019, states that their search was positive and to directly contact the Berry Creek Rancheria of Maidu Indians for more information.

By letters dated October 2, 2019, Natural Investigations Company contacted each of the Native American tribes provided by the NAHC, requesting any information regarding sacred lands or other heritage sites that might be impacted by the project. If no response was received, follow-up telephone calls were made on October 18, 2019, and messages left on voice mail.

DISCUSSION

Challenge Tank Replacement Project

5a) One historical resource—the Challenge Tank—was identified during pedestrian survey of the project site. The Challenge Tank was found not eligible for listing in the NRHP or CRHR and thus does not qualify as a historical resource (Natural Investigations Company 2019). No other historical resources were identified in the project site through background research or during the pedestrian survey. Therefore, no impact would occur to historical resources and no mitigation is necessary.

5b) No prehistoric or historic-era archaeological sites or ethnographic sites were identified during background research or survey of the project site (Natural Investigations Company 2019). Although the potential for discovery of buried archaeological materials within the project site is considered to be very low, it is possible that buried or concealed archaeological resources could be present that may be discovered during ground-disturbing and other construction activities associated with the project. Inadvertent discovery or damage to archaeological resources could be a significant impact. Implementation of the following mitigation would reduce this impact to a less-than-significant level.

5c) Based on the documentary research described above, no evidence suggests that any prehistoric or historic-era marked or unmarked human interments are present within or in the immediate vicinity of the project site (Natural Investigations Company 2019). However, there is the potential for unmarked, previously unknown Native American or other graves to be present and be uncovered during construction activities. California law recognizes the need to protect historic-era and Native American human burials, skeletal remains, and grave-associated items from vandalism and inadvertent destruction and any substantial change to or destruction of these resources would be a significant impact. Implementation of the following mitigation would reduce this impact to a less-than significant level.

Water Service Meters Replacement Project

5a) No historical resources, herein referring to historic-era architectural or built-environment resources, were identified through background research or during pedestrian survey of the project areas. Therefore, no impact would occur to historical resources and no mitigation is necessary.

5b) One previously recorded archaeological site was found during the survey to have been previously destroyed, and no prehistoric or historic-era archaeological sites or ethnographic sites were identified during survey of the project areas (Natural Investigations Company 2019). Although the potential for discovery of buried archaeological materials within the project areas is considered to be low, it is possible that buried or concealed archaeological resources could be present that may be discovered during ground-disturbing and other construction activities associated with the project. Inadvertent discovery or damage to archaeological resources could be a significant impact. Implementation of the following mitigation would reduce this impact to a less-than-significant level.

5c) Based on the documentary research described above, no evidence suggests that any prehistoric or historic-era marked or unmarked human interments are present within or in the immediate vicinity of the project site (Natural Investigations Company 2019). However, there is the potential for unmarked, previously unknown Native American or other graves to be present and be uncovered during construction activities. California law recognizes the need to protect historic-era and Native American human burials, skeletal remains, and grave-associated items from vandalism and inadvertent destruction and any substantial change to or destruction of these resources would be a significant impact. Implementation of the following mitigation would reduce this impact to a less-than significant level.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

Cul-1: Implement a Discovery Plan

In the unlikely event that buried cultural deposits (e.g., prehistoric stone tools, milling stones, historic glass bottles, foundations, cellars, privy pits) are encountered during project implementation, all ground-disturbing activity within 50 feet of the resources shall be halted and a qualified professional archaeologist (36 CFR 61) shall be notified immediately and retained to assess the significance of the find. Construction activities could continue in other areas. If the find is determined to be significant by the qualified archaeologist (i.e., because it is determined to constitute either a historical resource or a unique archaeological resource), the archaeologist shall develop appropriate procedures to protect the integrity of the resource and ensure that no additional resources are affected. Procedures could include but would not necessarily be limited to preservation in place, archival research, subsurface testing, or contiguous block unit excavation and data recovery.

In accordance with the California Health and Safety Code (CHSC), Section 7050.5, and the Public Resources Code (PRC) 5097.98, regarding the discovery of human remains, if any such finds are encountered during project construction, all work within the vicinity of the find shall cease immediately, a 50-foot-wide buffer surrounding the discovery shall be established, and the NYWD shall be immediately notified. The County coroner shall be contacted immediately to examine and evaluate the find. If the coroner determines that the remains are not recent and are of Native American descent, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendent (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

6. ENERGY

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

DISCUSSION

Challenge Tank Replacement Project

6a,b) The construction period would be just a few months and require only temporary use of heavy equipment. Operation of the project does not require any energy because water pressure is provided by gravitational head. Thus, construction and operation of the proposed project would not result in excessive or inefficient consumption of energy. Since the proposed project is simply the replacement of an existing tank and installation of a valve box, energy usage will remain the same. No agency plans for renewable energy resources or energy efficiency plans would be impacted as a result of implementation of the proposed project.

Water Service Meters Replacement Project

6a,b) The construction period would be just a few months and require only temporary use of heavy equipment. Operation of the project does not require any energy because water pressure is provided by gravitational head. The reduction in water leaks from installation of the new meters would save energy that is used to produce the water supply. Thus, construction and operation of the proposed project would not result in excessive or inefficient consumption of energy. Since the proposed project is simply the replacement of existing water service meters, energy usage will remain the same. No agency plans for renewable energy resources or energy efficiency plans would be impacted as a result of implementation of the proposed project.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

7. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	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.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒

SETTING

Challenge Tank Replacement Project and Water Service Meters Replacement Project

The project areas are in the Sierra Nevada Section of the Cascade – Sierra Mountains Physiographic Province (Fenneman and Johnson 1946). The surficial geology of the project areas are primarily Mesozoic volcanic rocks, unit 2 (Western Sierra Foothills and Western Klamath Mountains) (Jurassic) (Jennings et al. 1977). According to the Natural Resources Conservation Service's soil database "SSURGO/STATSGO", there is one mapped soil unit within the Challenge Tank project area: "Sites silt loam, N low montane", which has 9 to 15 percent slopes and is well drained. Numerous mapped soil units occur within the NYWD service area; these soil units vary in their soil composition and drainage class.

DISCUSSION

Challenge Tank Replacement Project

7 a-d) The property is not on a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning maps. The nearest known earthquake fault is the Foothills Fault System, northern reach section (Paynes Peak Fault), which is 11.7 miles west of the project area. Direct impacts related to rupture of a known earthquake fault are not likely. The California Geological Survey Information Warehouse / Regulatory Maps Portal was queried in December 2019; the project area and surrounding area is not within

or near a mapped landslide region. The Project is located in a relatively flat area with no steep slopes that could be considered a landslide risk. There would be a less than significant impact related to geologic hazards.

Construction of the proposed project will require conformance to applicable seismic building standards (e.g. California Building Code and International Building Code seismic building standards). These standards vary by zone and require structures and infrastructure to be built to withstand seismic effects such as rupture, shaking, or liquefaction. Therefore, the proposed project would have a less than significant impact regarding seismic forces and failures.

During construction of the proposed project, excavation and grading activities could result in minor soil erosion or the loss of topsoil. To address soil erosion, an erosion control plan and spill control plan will be implemented. The area of disturbance from project implementation is anticipated to be about 0.25 acre. For any project that disturbs 1 acre or more, the project proponent must enroll under the SWRCB's Construction General Permit prior to the initiation of construction. In conjunction with enrollment under this Permit, a SWPPP, Erosion Control Plan, and a Hazardous Materials Management/Spill Response Plan must be created and implemented during construction to avoid or minimize the potential for erosion, sedimentation, or accidental release of hazardous materials. No mitigation is necessary.

There is no potential for the soils present in the project area to be expansive because mapped soil units are high in loam and low in clay. Therefore, the proposed project would have a less than significant impact regarding geologic instability or expansive soils.

7 e) The Project does not involve a residence or human occupation of the site. The project does not include the use of, or construction of, new septic tanks and associated disposal facilities. Portable toilets will be available for construction workers. Therefore, the Project would have no impact upon human waste disposal.

7 f) Setting information and impact conclusions are derived from the paleontological resources assessment performed for this project by Natural Investigations Company (2019). Project plans, geologic maps of the project site, and relevant geological and paleontological literature were reviewed to determine which geologic units are present within the project site and whether fossils have been recovered within the project site or from those or similar geologic units elsewhere in the region. A search for known fossil localities was also conducted on May 22, 2019, through the online collections database of the University of California Museum of Paleontology (UCMP) in order to determine the status and extent of previously recorded paleontological resources within and surrounding the project site (Natural Investigations Company 2019).

The UCMP database indicates there are five known vertebrate, 22 invertebrate, seven microfossil, and five plant localities recorded within Sutter County, none of which are in the project vicinity. Vertebrate specimens include an Eocene-age shark and one Miocene-age horse from the Sutter Buttes (= Marysville Buttes), and three Pleistocene-age mammals. The Pleistocene specimens are a bison, horse, and proboscidean from three different localities (Sutter Buttes and two localities near the Sutter Bypass). The marine invertebrate and microfossil specimens are mainly from the Eocene Capay shale near the Sutter Buttes. The plant localities range in age from the Cretaceous to the Holocene.

None of the rock units that have yielded fossils in Sutter County are present within the project site, which is underlain by Late Holocene basin deposits (Qhb) deposited 2,000 years ago or less (Natural Investigations Company 2019). The fine-grained sediments, which have horizontal stratification, were deposited by standing or slow-moving water in topographic lows, like the Sutter Basin.

The alluvial basin deposits that underlie the project site have a low sensitivity for yielding significant paleontological resources. Due to their age, Holocene deposits are considered to have a low paleontological potential because they are geologically immature and are unlikely to have fossilized the remains of organisms.

No specimens are known from this rock unit in the County or project vicinity. Additionally, the project site contains no unique geologic features and has been previously disturbed by reclamation, creation of an artificial irrigation and drainage channel network, historic agricultural activities, grading and construction of roadways, Wagner Aviation Airport, and SCWWD's existing facilities.

No paleontological resources or unique geologic features are known to exist within or near the project site (Natural Investigations Company 2019). As noted, the project site is underlain by Late Holocene alluvial basin deposits that have a low sensitivity for paleontological resources. No mitigation measures for paleontological resources are required.

Water Service Meters Replacement Project

7 a-d) The individual water service meter sites are not on any known earthquake faults, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning maps, although faults are present in the region. The nearest known earthquake fault is the Foothills Fault System, northern reach section (Paynes Peak Fault), which is on the western boundary of the NYWD service area. There would be no direct impact related to rupture of a known earthquake fault. The California Geological Survey Information Warehouse / Regulatory Maps Portal was queried in December 2019; the project area is not within or near a mapped landslide region. There would be no impact related to geologic hazards.

Construction of the proposed project will require conformance to applicable seismic building standards (e.g. California Building Code and International Building Code seismic building standards). These standards vary by zone and require structures and infrastructure to be built to withstand seismic effects such as rupture, shaking, or liquefaction. Therefore, the proposed project would have a less than significant impact regarding seismic forces and failures.

During construction of the proposed project, excavation and grading activities could result in minor soil erosion or the loss of topsoil. To address soil erosion, an erosion control plan and spill control plan will be implemented. There is little potential for the soils present in the project area to be expansive because most mapped soil units are not high in clay. The water service meter connections, as designed, are not particularly sensitive to geologic instability or expansive soils. Therefore, the proposed project would have a less than significant impact regarding geologic instability or expansive soils.

7 e) The Project does not involve a residence or human occupation of the site. The project does not include the use of, or construction of, new septic tanks and associated disposal facilities. Portable toilets will be available for construction workers. Therefore, the Project would have no impact upon human waste disposal.

7 f) Setting information and impact conclusions are derived from the paleontological resources assessment performed for this project by Natural Investigations Company (2019). Project plans, geologic maps of the project site, and relevant geological and paleontological literature were reviewed to determine which geologic units are present within the project site and whether fossils have been recovered within the project site or from those or similar geologic units elsewhere in the region. A search for known fossil localities was also conducted on August 30, 2019, through the online collections database of the University of California Museum of Paleontology (UCMP) in order to determine the status and extent of previously recorded paleontological resources within and surrounding the project site (Natural Investigations Company 2019).

The UCMP database indicates there are eight vertebrate and 130 invertebrate localities in Butte County. The majority of the invertebrate and five of the vertebrate localities yielded marine fossils from the Chico Formation. The three remaining vertebrate localities yielded fossils (bird, horse, and gomphothere) ranging in age between the Miocene and Pleistocene (13.6 million–11,700 years). For Yuba County, the UCMP database indicates there are no vertebrate localities, one invertebrate locality, and two fossil plant localities, none of

which are in the project vicinity. The invertebrate locality, which is Recent in age, and the two Tertiary-age marine plant localities have no specimens listed in the database.

None of the rock units listed in the UCMP database for Butte or Yuba Counties are present within the project site. The project site is underlain by igneous intrusive gabbroic rocks, an ophiolite sheeted dike complex, and metavolcanic rocks of the Late Jurassic (~160 million years) Smartville Complex (Natural Investigations Company 2019). The plutonic (i.e., igneous) and metavolcanic rocks that underlie the project site have a zero sensitivity for paleontological resources, as fossils are absent due to the high temperature and pressure conditions associated with their formation. The fractured, altered and faulted dike complex typically has almost no fossil evidence. Additionally, the project site contains no unique geologic features. No paleontological resources or unique geologic features are known to exist within or near the project site (Natural Investigations Company 2019). As noted, the project site is underlain by Late Holocene alluvial basin deposits that have a low sensitivity for paleontological resources. No mitigation measures for paleontological resources are required.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

8. GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒

DISCUSSION

Challenge Tank Replacement Project

8a,b) FRAQMD screens project via the CEQA Guidelines as well as their adopted Thresholds of Significance. FRAQMD has established the following project-level thresholds to define substantial contribution for both operational and construction emissions. Projects that generate less than 3,000 metric tons CO_{2e} per year are assumed to have a less than significant impact on GHG emissions. Emissions were calculated using CalEEMod® (California Air Pollution Control Officers Association, 2017). Model output and reports from CalEEMod® are provided in the assessment by Natural Investigations Co. (2020). The assessment concluded that the project, in both the construction and operational phases, has annual emissions of greenhouse gasses well below the threshold annual quantity of 3,000 metric tons CO_{2e}. Construction would generate approximately 54 metric tons CO_{2e}, and operation of the Challenge Tank would not generate measurable amounts of CO_{2e} because the tank is operated by gravitational head, and does not use electricity. Implementation of the project will have a less than significant impact upon greenhouse gas emissions. Although the Proposed Action would result in a small construction-related GHG emission, improved operations would offset the Project's contribution to climate change. A net reduction in GHG will occur from water conservation (reducing energy required for production). Therefore, there are no cumulative effects associated with GHG emissions.

Water Service Meters Replacement Project

8a,b) Emissions were calculated using CalEEMod®. Model output and reports from CalEEMod® are provided in the assessment by Natural Investigations Co. (2020). The assessment concluded that the project, in both the construction and operational phases, has annual emissions of greenhouse gasses well below the threshold annual quantity of 3,000 metric tons CO_{2e}. Construction (meter replacement) could generate up to 1 metric ton CO_{2e} per meter, which results in a total of less than 1,000 metric tons CO_{2e}. Operation of the meters would not generate measurable amounts of CO_{2e} because the meters are operated by water pressure and by small batteries, and does not use appreciable amounts of electricity. Although the Proposed Action would result in a small construction-related GHG emission, improved operations would offset the Project's contribution to climate change. A net reduction in GHG will occur from both water conservation (reducing energy required for production), and from the reduction in emissions associated with drive-by meter reading routes. Therefore, there are no cumulative adverse effects associated with GHG emissions.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

9. HAZARDS AND HAZARDOUS MATERIALS

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

DISCUSSION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

9a,b) During construction of the proposed projects, surface water quality has a minor potential to be degraded from the accidental release of hazardous materials or petroleum products from sources such as heavy equipment servicing or refueling. To address potential indirect impacts to receiving water bodies from pollution during construction of the proposed projects, an erosion control plan and spill control plan will be implemented. The area of disturbance for construction of the new Challenge Tank is anticipated to be about 0.25 acre. For each meter replacement, only 1 to 2 square feet of ground needs to be disturbed. For any project that disturbs 1 acre or more, the project proponent must enroll under the SWRCB's Construction General Permit prior to the initiation of construction. In conjunction with enrollment under this Permit, a SWPPP, Erosion Control Plan, and a Hazardous Materials Management/Spill Response Plan must be created and implemented during construction to avoid or minimize the potential for erosion, sedimentation, or accidental release of hazardous materials. Operation of the project will not involve any significant quantities of hazardous materials. No mitigation is necessary.

9c) The project uses will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, because the projects have no emissions.

9d) The following hazardous materials databases were queried in February 2020:

- EnviroStor is an online search and Geographic Information System tool for identifying sites that have known contamination or sites for which there may be reasons to investigate further. The EnviroStor database includes the following site types: Federal Superfund sites (National Priority List); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites.
- GeoTracker is a geographic information system maintained by the SWRCB that provides online access to environmental data at the Internet address (URL) = <http://geotracker.waterboards.ca.gov/>.

The Challenge Tank project area is not included on a list of hazardous materials sites. The individual service meter locations are not included on a list of hazardous materials sites. Some properties in the vicinity are listed with open or closed cases. The closest site to the Challenge Tank is an open case (former Reinke's Chevron station) approximately 2,000 feet southwest of the Challenge Tank on La Porte Road; this case involves soil contamination from leaking underground storage tanks that held petroleum products.

9e) The project areas are not 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. The nearest public airstrip or airport is the Brownsville Airport which is not near a service meter site and is over 4.4 miles to the southwest of the Challenge Tank project area. The proposed projects will not create a safety hazard or emit loud noises.

9f) The projects will not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, because the projects do not involve the construction of barriers such as walls or buildings in the path of emergency access. The new Challenge Tank site will only involve replacing an existing water storage tank and installing valve box. The replacement of existing water service meters may occupy one traffic lane, but will never entirely close a road. Traffic control will be implemented as necessary.

9g) The project areas are partially in a Federal Responsibility Area and partially in a State Responsibility Area. The Challenge Tank Project Area, and some of the water service meter sites, are located within an area designated "very high fire hazard severity zone" (California Department of Forestry and Fire Protection, 2019). However, existing laws, such as requirements for maintenance of defensible space around structures would reduce potential wildfire risks. The project will not expose people or structures to a significant risk of loss, injury or death involving wildland fires. No new buildings are proposed that house humans. There is no increased risk for wildfire due to operation of the proposed projects. To the contrary, replacement of the leaking tank and leaking meters will increase water storage capacity, and the Challenge Tank is part of a water supply system for fighting wildfires. Adherence with existing regulations and best management practices, such as requirements for maintenance of defensible space, the use of spark arrestors, and implementation of a construction fire safety plan, would address any fire risk. Implementation of the proposed projects will have a less than significant impact upon the risk of wildfire.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

10. HYDROLOGY AND WATER QUALITY

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

SETTING

Challenge Tank Replacement Project and Water Service Meters Replacement Project

The NYWD maintains and operates the drinking water system for the foothill communities of Forbestown, Challenge, Brownsville and Rackerby. NYWD currently serves approximately 3,100 people through approximately 800 metered connections. The average daily demand is approximately 390,000 gallons (~271 gallons per minute (gpm)). The District uses a surface water source provided primarily by the Forbestown Ditch through diversion of the South Feather River, which is controlled by the South Feather Water and Power. NYWD has two permits that allow for diversion and use of 23,700 acre-feet per year of water. The District also has a water right license that authorizes a diversion from the natural Dry Creek of 21.4 cubic feet per second with a maximum of 6,060 acre-feet per year for domestic and irrigation purposes. Most of this water is used for agricultural purposes. Approximately 800 acre-feet per year is diverted from the Forbestown Ditch to the District's water treatment plant and raw water storage reservoir for domestic use with the remaining water continuing to the Dobbins-Oregon House Canal. The replacement of the Challenge Tank and the replacement and upgrade of the water service meters is designed to conserve water and reduce water loss, and thereby preserve water supplies and save treatment costs.

DISCUSSION

Challenge Tank Replacement Project

10 a) The entire project area has upland features and contains no channels or wetlands (i.e., no jurisdictional waters of the United States). Thus, Project construction cannot directly impact any surface water bodies. To address potential indirect impacts to receiving water bodies from pollution during construction of the proposed project, an erosion control plan and spill control plan will be implemented. Implementation of the proposed project will have a less than significant impact upon water quality.

10 b) The proposed project does not involve groundwater. There will be no impacts to groundwater resources.

10 c) Implementation of the proposed project will not alter drainage patterns because no significant grading will occur and no new infrastructure will be constructed. To address potential indirect impacts to receiving water bodies from pollution during construction of the proposed project, an erosion control plan and spill control plan will be implemented. The project is simply the replacement of existing infrastructure.

The area of disturbance from project implementation is anticipated to be about 0.25 acre. For any project that disturbs 1 acre or more, the project proponent must enroll under the SWRCB's Construction General Permit prior to the initiation of construction. In conjunction with enrollment under this Permit, a SWPPP, Erosion Control Plan, and a Hazardous Materials Management/Spill Response Plan must be created and implemented during construction to avoid or minimize the potential for erosion, sedimentation, or accidental release of hazardous materials. The proposed project will have a less than significant impact upon drainage patterns.

10 d) The project will not be impacted by seiche or tsunami because the project is not adjacent to any body of water that has the potential of seiche or tsunami. The project site is not near the ocean or on a steeply sloped hill. The proposed project will not use hazardous materials or any pollutants which could risk release into the environment. Implementation of the proposed project will have no impact on the environment from inundation from flooding, seiche, or tsunami.

10 e) In regards to surface water, the project area is located within the Water Quality Control Plan for the Sacramento and San Joaquin River Basins. The Basin Plan establishes water quality objectives. Water quality will be protected by implementation of an erosion control plan during construction. In the operational phase, the project will not discharge any water or pollutants. The proposed project does not involve groundwater. There will be no impacts to groundwater resources. Implementation of the proposed project will have no impact upon water quality plans.

Water Service Meters Replacement Project

10 a) The entire project area has upland features and contains no channels or wetlands (i.e., no jurisdictional waters of the United States). Thus, Project construction cannot directly impact any surface water bodies. Some service water meter locations are near channels or wetlands. However, the project is simply the replacement of existing infrastructure with individual construction footprints of only 2 square feet per meter. To address potential indirect impacts to receiving water bodies from pollution during construction of the proposed project, an erosion control plan and spill control plan will be implemented. Implementation of the proposed project will have a less than significant impact upon water quality.

10 b) The proposed project does not involve groundwater. There will be no impacts to groundwater resources.

10 c) Implementation of the proposed project will not alter drainage patterns because no significant grading will occur and no new infrastructure will be constructed. To address potential indirect impacts to receiving

water bodies from pollution during construction of the proposed project, an erosion control plan and spill control plan will be implemented. The project is simply the replacement of existing infrastructure with individual construction footprints of only 2 square feet per meter. The proposed project will have a less than significant impact upon drainage patterns.

10 d) The project will not be impacted by seiche or tsunami because the project is not adjacent to any body of water that has the potential of seiche or tsunami. The project site is not near the ocean or on a steeply sloped hill. The proposed project will not use hazardous materials or any pollutants which could risk release into the environment. Implementation of the proposed project will have no impact on the environment from inundation from flooding, seiche, or tsunami.

10 e) Water quality will be protected by implementation of an erosion control plan during construction. In the operational phase, the project will not discharge any water or pollutants. The proposed project does not involve groundwater. There will be no impacts to surface or groundwater resources. Implementation of the proposed project will have no impact upon water quality plans.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

11. LAND USE AND PLANNING

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

DISCUSSION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

11 a,b) The projects will not physically divide an established community because the project does not involve the construction of barriers, such as new roads, and because no one will be displaced from their homes. The Challenge Tank project is the improvement of an existing, permitted water tank that is operating in conformance with the Special Use Permit. The Challenge Tank site is zoned by the County as "Resource Preservation and Recreation (RPR)", although the County does not have jurisdiction over federal land. Therefore, use of the project area does not conflict with any County land use plan, policy, or regulation. Issuance of the Special Use Permit by the U.S. Forest Service for use of the land for the Challenge tank requires adherence to various federal policies and regulations.

The individual water meter service locations have a variety of County zoning designations. The service meter locations are primarily in the rights of way of public roads. The proposed project Water Service Meters Replacement Project is just the replacement and upgrade of existing water service meters. There will be no impacts or conflicts with land use or planning policies.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

12. MINERAL RESOURCES

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

DISCUSSION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

12 a,b) The Surface Mining and Reclamation Act requires that local jurisdictions enact planning procedures to guide mineral conservation and extraction at particular sites and to incorporate mineral resource management policies into their general plans. On this basis, it is presumed that counties would, as needed and as applicable, encourage the conservation (i.e., protection from incompatible land uses) of areas designated as having substantial potential for mineral extraction and discourage development that would substantially preclude the future development of mining facilities in these areas. The potential for the extraction of substantial mineral resources from lands classified by the State as areas that contain mineral resources (Mineral Resource Zone [MRZ]-3) would be considered by counties at a local level when making land use decisions.

The following Mineral Lands Classification data portal was queried on February 16, 2020:

- The Surface Mining and Reclamation Act Mineral Lands Classification data portal is a geographic information system provided by the Department of Conservation through data maintained by the California Geological Survey. This data portal provides online access to environmental data at the Internet address (URL) = <http://maps.conservation.ca.gov/cgs/informationwarehouse/>.

The Mineral Lands Classification database does not designate the project areas or surrounding parcels as a mineral resource zone. The nearest mineral resource zone are the gravel bars of major rivers, such as the lower Yuba River, which are a source of aggregates. The proposed projects does not involve mineral extraction. The proposed projects would have no impact upon mineral resources.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

13. NOISE

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

DISCUSSION

Challenge Tank Replacement Project

13 a, b) The project area is not adjacent to any noise-sensitive land uses (residential, daycare, school, medical, etc.). Noise sources consist of vehicular traffic along adjacent roads, primarily Old La Porte Road and La Porte Road. The duration of construction is just a few months and does involve heavy machinery. Construction will involve some noisy activities, such as bolting together steel plates. However, construction will be temporary and will occur only during normal work hours, and is not likely to be heard by residents. Operational noises cannot be heard from the property line and vibrations, if any, cannot be felt. Vehicular traffic will be limited to occasional service trips. Therefore, construction and operation of the proposed project will have a less than significant noise or vibration impact.

Water Service Meters Replacement Project

13 a, b) For the most part, the individual water service meter sites are not adjacent to any noise-sensitive land uses (residential, daycare, school, medical, etc.); there are a few exceptions. Existing noise sources consist of primarily of vehicular traffic along public roads. The duration of construction is just a few hours at each service meter site. Construction will not involve noisy activities such as pile driving or explosives, although short-term loud noises from excavation equipment are likely. Once in service, the meters have no operational noises. Vehicular traffic will be limited to occasional service trips. Therefore, construction and operation of the proposed project will have a less than significant noise or vibration impact.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

14. POPULATION AND HOUSING

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

DISCUSSION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

14 a,b) NYWD currently serves approximately 3,100 residences through approximately 800 metered connections. The population served varies in age, household income, and ethnicity. Challenge-Brownsville is a census-designated place in Yuba County, roughly 17 miles east of Oroville. The 2010 United States census reported Challenge-Brownsville population was 1,148. The population density was 120 people per square mile. The racial makeup of Challenge-Brownsville is predominantly white/Caucasian and Hispanic/Latino. Median household income of approximately \$53,083 per year in 2017. NYWD currently serves approximately 3,100 people through approximately 800 metered connections.

The project will not induce population growth in the area either directly or indirectly. The project is not proposing any new residential development and the project will not significantly expand water infrastructure which might stimulate population growth. The projects will not involve the removal of housing. Implementation of the proposed projects will have no impact upon population growth or people or housing.

NYWD was recently designated as a Severely Disadvantaged Community with an annual median household income less than that of the Statewide annual income. Potential funding sources to complete the construction include an additional Proposition 1 grant from the State and other grants that may be available from other funding agencies. The proposed projects are part of a larger program to improve the existing NYWD water system. It will thus have a beneficial impact upon minority, low-income, or indigenous populations, or tribes by ensuring an adequate water supply. The projects are designed to enhance the water supply of rural communities, resulting in a beneficial impact upon all people irrespective of race or income.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

15. PUBLIC SERVICES

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

DISCUSSION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

15 a i-v) The proposed projects would not stimulate population growth or substantially increase demand for public services because no new structures or services will be constructed. The project areas are not at a park or other public facility. The proposed projects are simply the replacement of an existing water tank and service meters. Implementation of the proposed projects would have a beneficial impact upon existing water users by providing them with a more efficient water supply. Therefore, no adverse impact to public services will occur.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

16. RECREATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

DISCUSSION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

16 a-b) The Challenge Tank Project Area is no near parks or recreational facilities. The nearest parks and recreational facilities are: Cedar Brooke Park, 0.2 miles to the northwest; and Costa Creek / Dry Creek, 1.1 miles to the west. The Challenge Tank Project Area is 2.7 miles northwest of New Bullards Bar Reservoir which is used for recreational activities such as boating, swimming, fishing, and camping. The Challenge Tank Project Area is within the Plumas National Forest; national forests are used for many recreational activities. The majority of water service meter sites are not near parks or recreational facilities. Some of the nearby parks and recreational facilities are Cedar Brooke Park, Costa Creek / Dry Creek, and New Bullards Bar Reservoir. The proposed projects would not involve parks or recreational facilities. The proposed projects have no potential to cause or accelerate physical deterioration of recreational facilities, or include or require construction, expansion, or increased use of such facilities.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

17. TRANSPORTATION

Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Conflict with a plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths?	☐	☐	☒	☐
b) For a land use project, would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(1)?	☐	☐	☐	☒
c) For a transportation project, would the project conflict with or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)(2)?	☐	☐	☐	☒
d) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e) Result in inadequate emergency access?	☐	☐	☐	☒

DISCUSSION

Challenge Tank Replacement Project

17 a-e) The project area is accessed by a public, unpaved road – Old La Porte Road. Most regional eastbound (to north-eastbound) and westbound traffic utilizes La Porte Road, and northbound and southbound traffic uses Challenge Cutoff Road or Willow Glen Road. The road closest to the project area, Old La Porte Road, is used only for access to Plumas National Forest land and the tank itself.

Construction of the proposed project is not anticipated to generate substantial numbers of vehicle trips. The daily trip estimate is 4 to 8 roundtrips per day with pickup trucks and equipment operators for up to two months, and 1 roundtrip per day for a concrete truck for 2 to 4 days and the same for material delivery. This low number of total trips resulting from construction will not lower the Level of Service on any roadway. The proposed project does not propose any new development, construction or physical change to the environment that would directly or indirectly result in any impacts to on-ground transportation and traffic, including emergency access. The driveway for the tank has sufficient room for a “T” shaped turn, called a “hammerhead,” for emergency vehicle access and turnaround. There will be a less than significant impact to circulation systems and emergency access.

Water Service Meters Replacement Project

17 a-e) The individual service meter sites are all accessible by public roads. Construction of the proposed project is not anticipated to generate substantial numbers of vehicle trips. For each service meter site, the daily trip estimate is 1 to 4 roundtrips per day for just one day, using pickup trucks and trailers hauling excavation equipment and gravel. This low number of total trips resulting from construction will not lower the Level of Service on any roadway. The proposed project does not propose any new development, construction, or physical change to the environment that would directly or indirectly result in any impacts to on-ground transportation and traffic, including emergency access. There will be a less than significant impact to circulation systems and emergency access because lane closures will only last a few hours and will not involve closure of all traffic lanes.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

18. TRIBAL CULTURAL RESOURCES

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

SETTING

Challenge Tank Replacement Project and Water Service Meters Replacement Project

The following cultural resources assessments were prepared for this project:

- Natural Investigations Company. 2019. Cultural Resources Inventory and Effects Assessment for the North Yuba Water District Challenge Water Tank Replacement Project, Yuba County, California. Prepared for North Yuba Water District. 49 pp.
- Natural Investigations Company. 2019. Cultural Resources Inventory and Effects Assessment for the North Yuba Water District Water Meter Replacement Project, Yuba County, California. Prepared for North Yuba Water District, Brownsville, CA. 66 pp.

Consultation Pursuant To AB 52

In 2015, the Legislature passed Assembly Bill (AB) 52 and the Governor signed it into law. The statute amended CEQA to establish tribal consultation procedures for evaluation of potential effects to tribal cultural resources. To initiate the AB 52 consultation process, tribes must submit a written request to a lead agency to be informed through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the tribe (PRC Section 21080.3.1[b]). No requests for consultation under the requirements of AB 52 have been received for either project.

DISCUSSION

Challenge Tank Replacement Project

18a:i,ii) No requests in writing pursuant to AB 52, from geographically affiliated tribes for consultation under the requirements of AB 52 regarding the potential of the project to impact tribal cultural resources, have been received prior to the date of this document. As previously discussed in the Cultural Resources Section, although there were no requests pursuant to AB 52, the Cachil Dehe Band of Wintu Indians of the Colusa Indian Community stated via email dated May 15, 2019 that the project is within the Tribe's aboriginal territories and they would like to initiate formal 106 consultation with the lead agency. Therefore, no tribal cultural resources defined under AB 52 have been identified on the project site and the project would have no impact. No mitigation measures for tribal cultural resources are required.

While not expected, it is possible that buried archaeological resources may be found that could be recognized as tribal cultural resources. If archaeological resources are discovered on site, these resources shall be handled according to CEQA Section 15064.5(c), which calls on lead agencies to refer to the provisions of Section 21083.2 of the Public Resources Code, or Section 21084.1 if it is determined to be a historical resource. If the find is determined by the Lead Agency in consultation with the Native American tribe traditionally and culturally affiliated with the geographic area of the project site to be a tribal cultural resource and the discovered archaeological resource cannot be avoided, then applicable mitigation measures for the resource shall be discussed with the geographically affiliated tribe. This would ensure that any undocumented tribal cultural resources or inadvertent discoveries of tribal cultural resources during construction or ground-disturbing activities would be properly recorded and the cultural significance of the resources documented. This is now standard procedure for any project in California, so the impact would be reduced to less than significant.

Water Service Meters Replacement Project

18a:i,ii) No requests, in writing pursuant to AB 52, from geographically affiliated tribes for consultation under the requirements of AB 52 regarding the potential of the project to impact tribal cultural resources have been received prior to the date of this document. Therefore, no tribal cultural resources have been identified on the project site and the project would have no impact. No mitigation measures for tribal cultural resources are required.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

19. UTILITIES AND SERVICE SYSTEMS

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

DISCUSSION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

19 a-f) The proposed projects will improve an existing water supply system by replacing a water storage tank that leaks and upgrading water service meters that function poorly. The proposed projects would not significantly expand the water supply system, and existing water resources are sufficient to serve the communities, including during droughts. The proposed projects do not involve any public wastewater or stormwater treatment services, electric power, natural gas, or telecommunications facilities. No significant quantities of solid waste would be generated by the proposed projects. The projects will comply with all local, state, and federal regulations regarding solid waste during disposal of the old tank components and water meters. The proposed projects do not propose any new development, construction, or physical change to the environment that would directly or indirectly result in any impacts to utilities and service systems. Therefore, the proposed projects will have a less than significant impact upon utilities and service systems.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

20. 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 Incorporated	Less Than Significant Impact	No Impact
a) 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?	☐	☐	☐	☒

DISCUSSION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

20 a-d) The Public Resources Code includes fire safety regulations that apply to fire hazard areas during the time of year designated as having hazardous fire conditions. During the fire hazard season, these regulations restrict the use of equipment that may produce a spark or fire, require the use of spark arrestors on engines, and specify fire-suppression equipment that must be provided on-site for various types of work in fire-prone areas. Public Resources Code section 4291 provides that a person who maintains a building or structure on land that is covered with flammable material shall at all times maintain defensible space.

The project areas are partially in a Federal Responsibility Area and in a State Responsibility Area. The project areas are partially within areas designated “very high fire hazard severity zone” (California Department of Forestry and Fire Protection, 2019). However, existing laws, such as requirements for maintenance of defensible space around structures would reduce potential wildfire risks. The projects will not expose people or structures to a significant risk of loss, injury or death involving wildland fires. No new buildings are proposed that house humans. There is no increased risk for wildfire due to operation of the proposed projects. To the contrary, replacement of the leaking tank and meters will increase storage capacity, and the Challenge Tank is part of a water supply system for fighting wildfires. Adherence with existing regulations and best management practices, such as requirements for maintenance of defensible space, the use of spark arrestors, and implementation of a construction fire safety plan, would address any fire risk. Implementation of the proposed projects will have a less than significant impact upon the risk of wildfire. The topography of the Challenge Tank project site and the surrounding area is relatively flat. The Water Service Meters Project Area and surrounding areas are not within a mapped landslide region. If a wildfire were to occur within the project areas, there would be no increased risk to people or structures due to landslides, flooding, or other post-fire instability issues. Implementation of the proposed projects will have no impact upon the risk of wildfire or post-fire instability.

MITIGATION

Challenge Tank Replacement Project and Water Service Meters Replacement Project

No mitigation is required.

21. MANDATORY FINDINGS OF SIGNIFICANCE

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

DISCUSSION

21 a) Environmental Quality. As demonstrated by the preceding analyses and discussions, implementation of the two projects, with mitigation measures incorporated, would not 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.

21 b, c) Cumulative Impacts and Adverse Effects on Human Beings. The two projects would not result in adverse impacts that are individually limited but cumulatively considerable and would not involve substantial adverse effects on human beings, either directly or indirectly. All of these potential effects would be less than significant with implementation of mitigation measures identified in this document and would not contribute in considerable levels to cumulative impacts.

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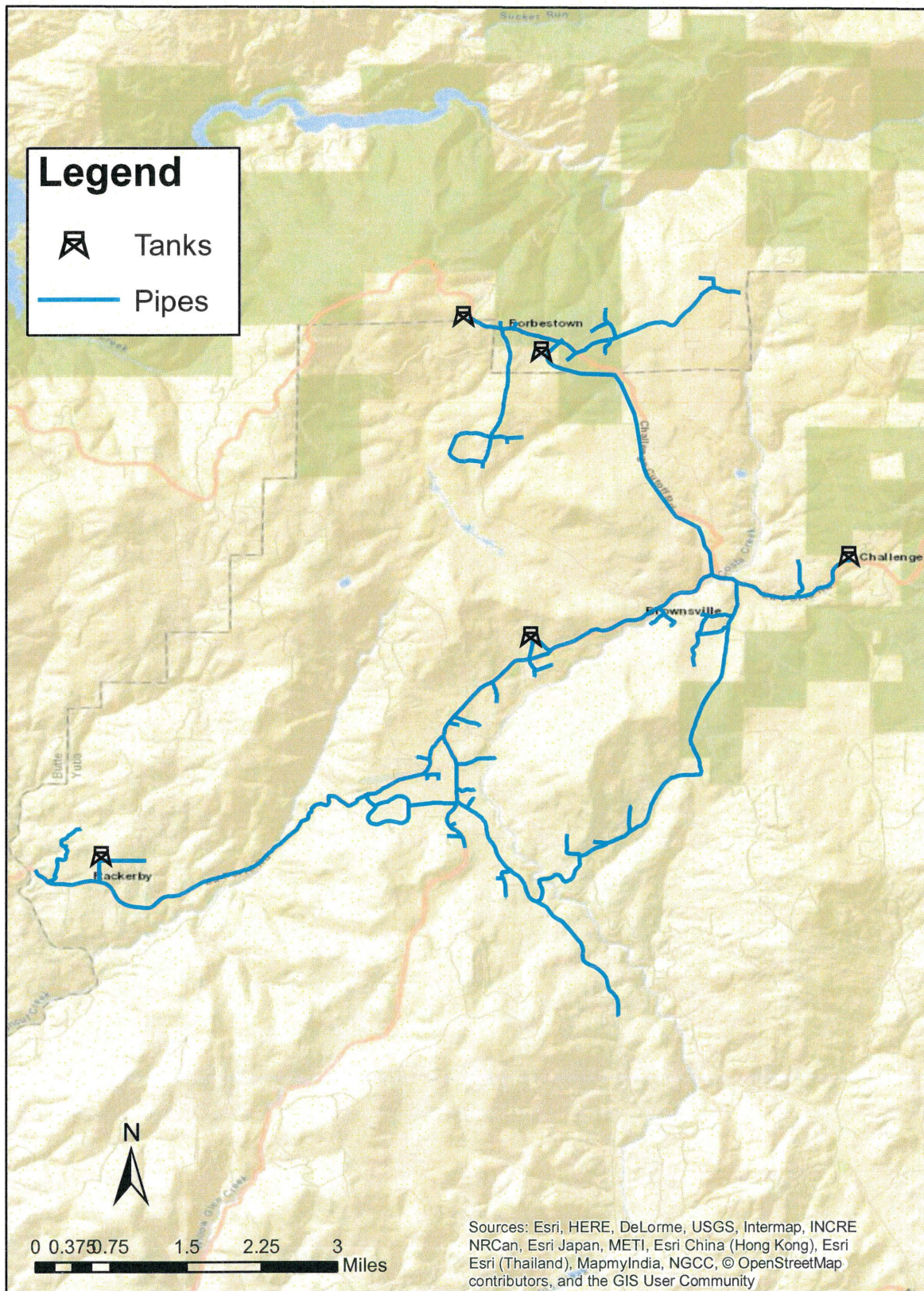
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EXHIBITS

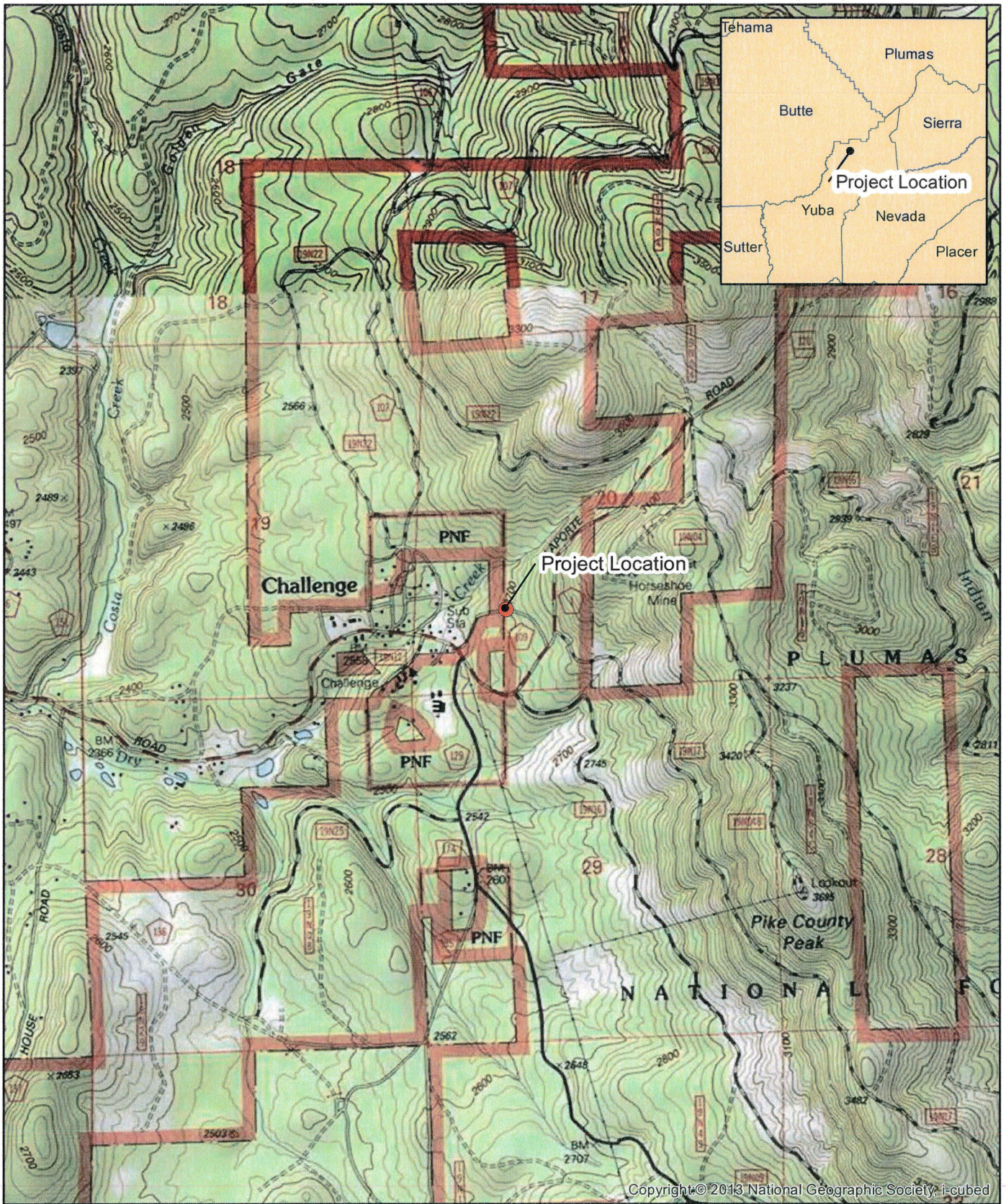


California
Rural Water Association

NYWD DISTRIBUTION SYSTEM

FIGURE

1
13



● Project Location

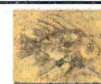
0 0.5 1 Kilometers

0 0.5 1 Miles



1:24,000

NYWD Challenge Tank
Replacement Project
Project Location Map



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Valve box

Water main

Lease boundary
(approximate)

Challenge tank

Old La Porte Road

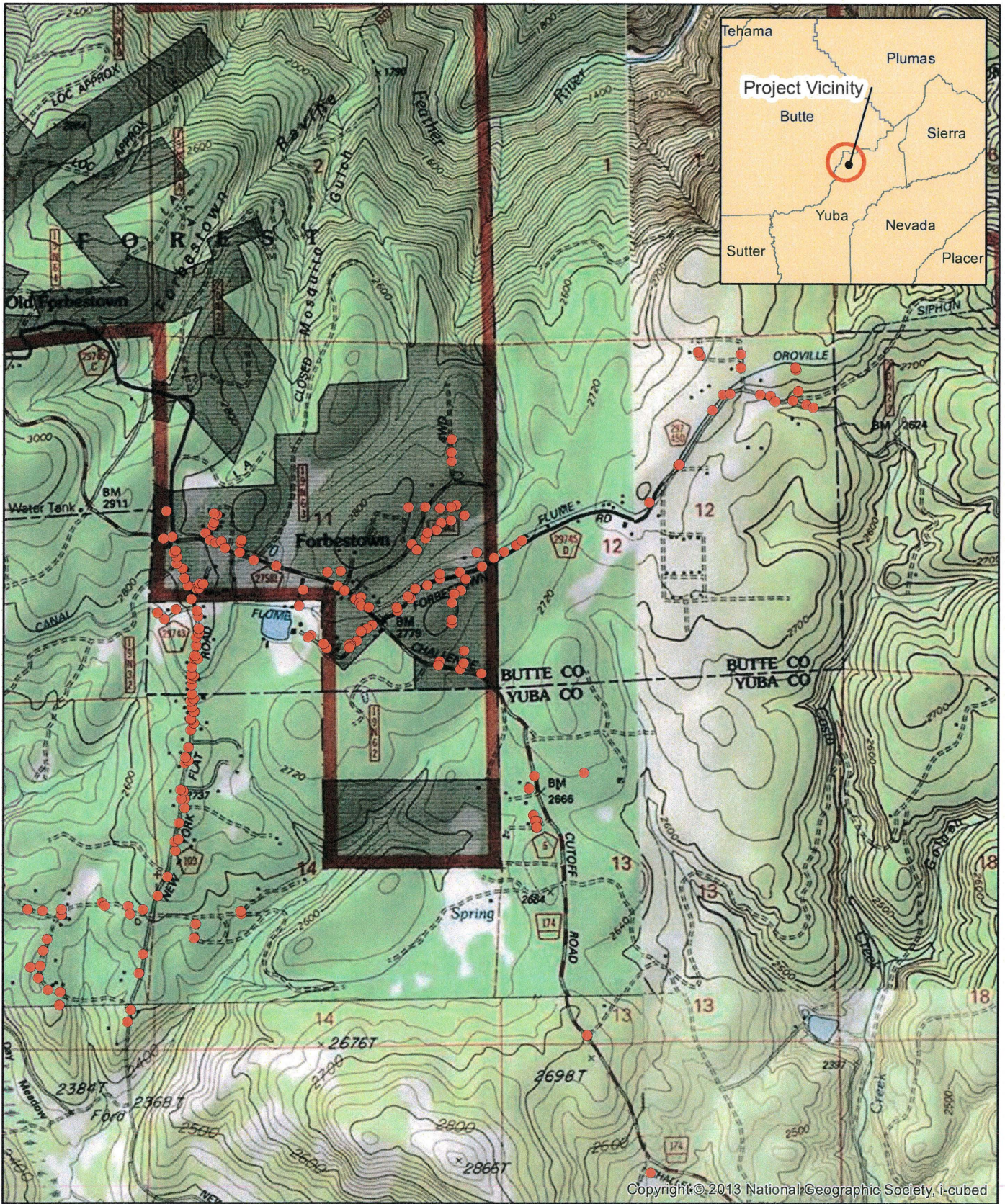
Project Details on Aerial Photo
NYWD Challenge Tank Replacement Project



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200 ft



● Service Meter Locations

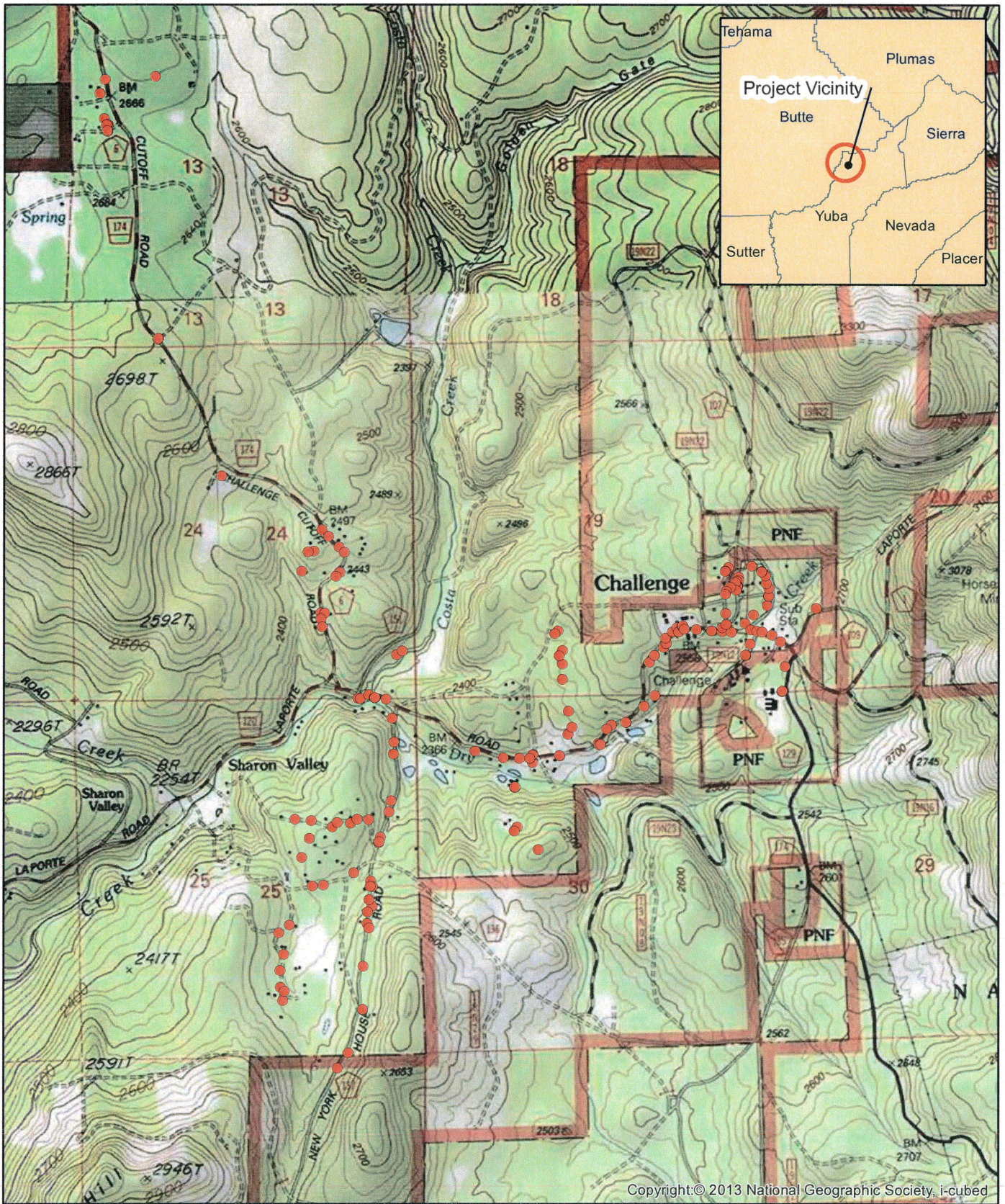
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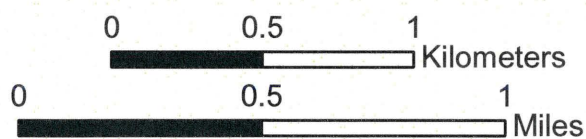
North Yuba Water District
Project Location Map
Map 1 of 4

NATURAL INVESTIGATIONS COMPANY

1:24,000



● Service Meter Locations



1:24,000

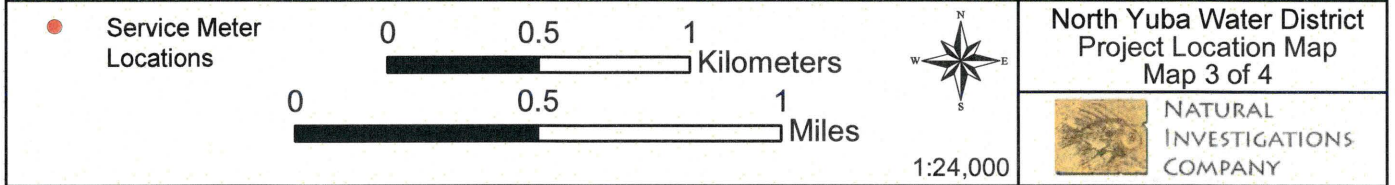
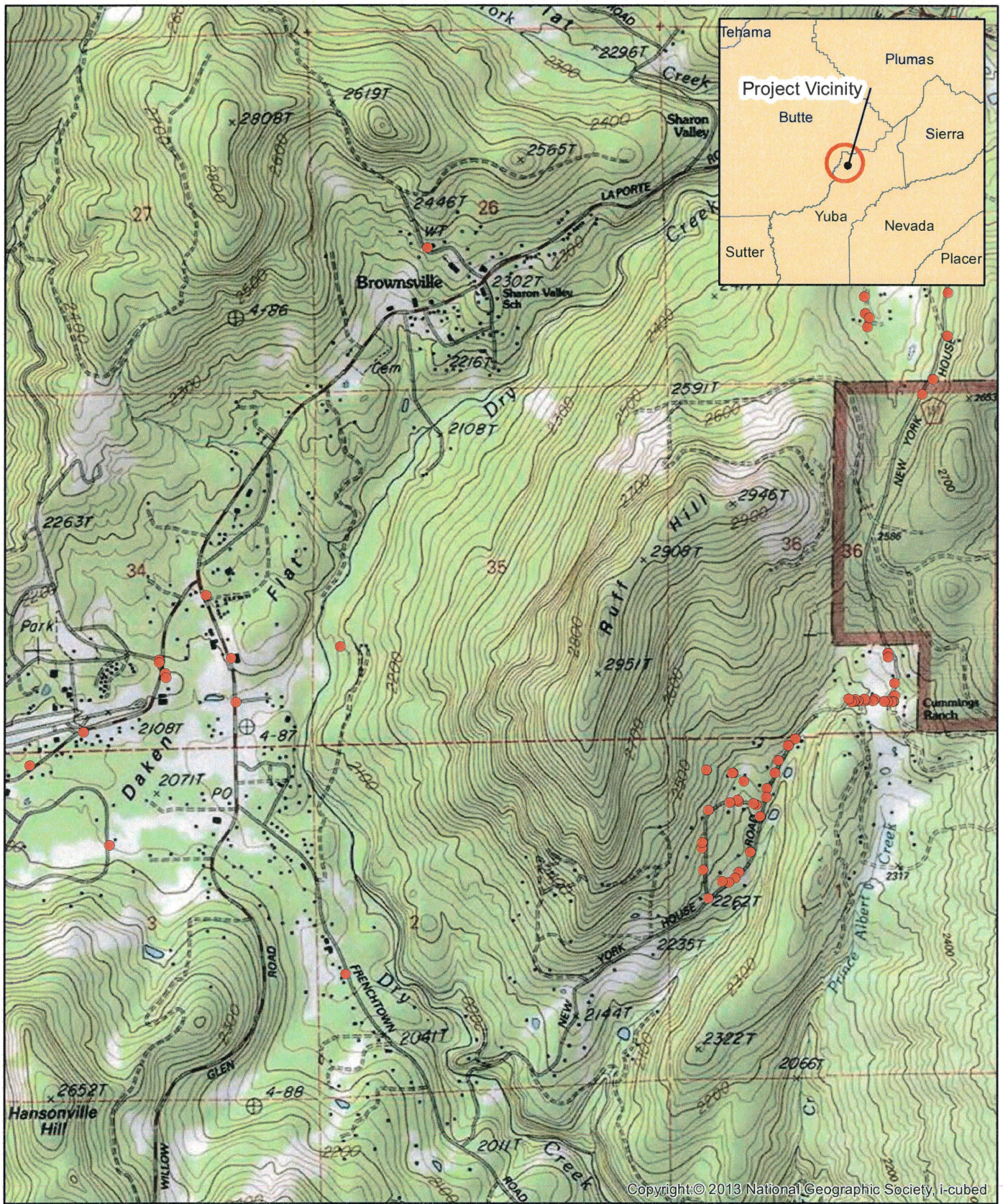
North Yuba Water District
Project Location Map
Map 2 of 4



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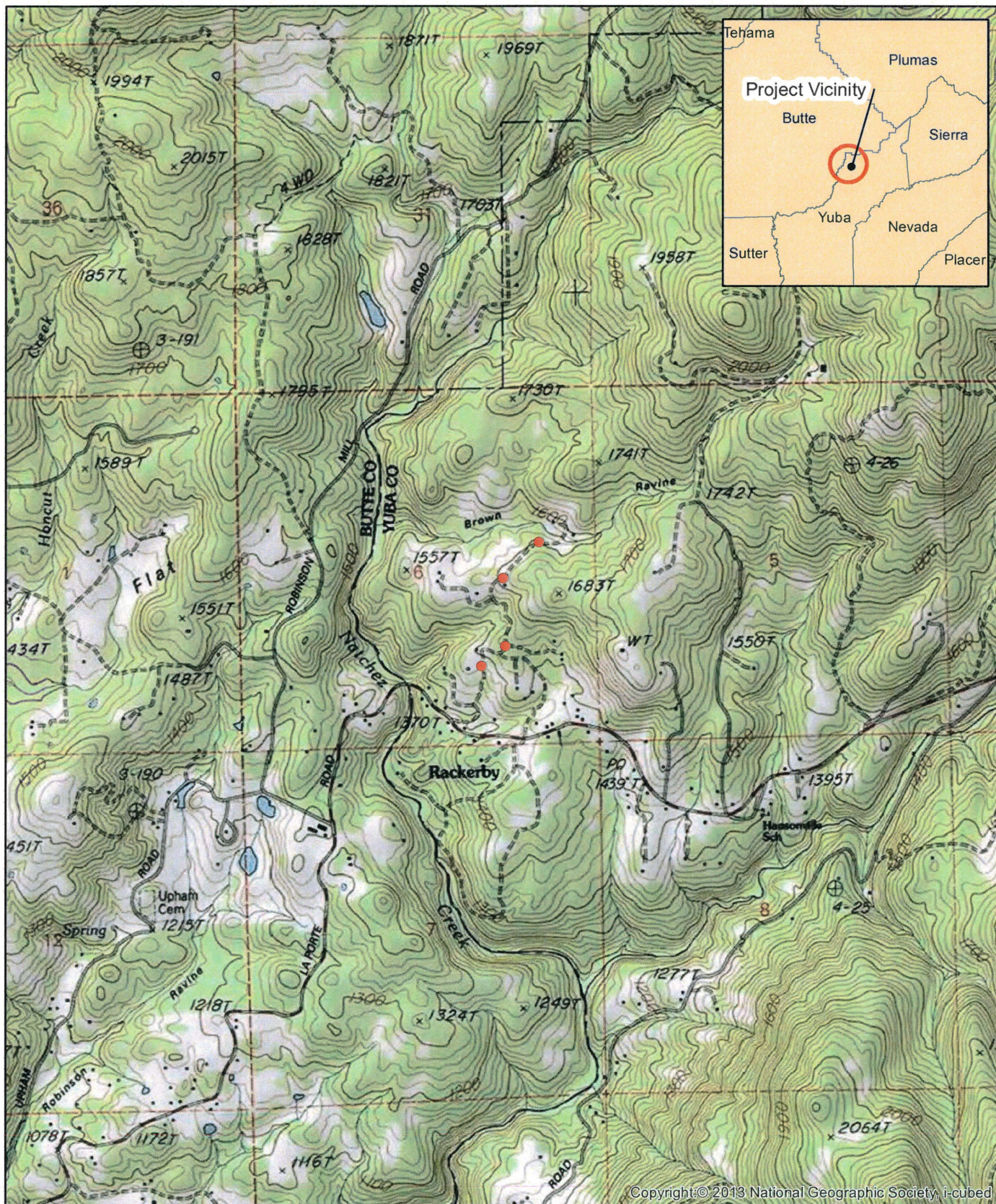
Map Date 9/18/2019

Challenge 2000 Quadrangle: T 19N, R 6E, S 24, 25, 36 : T 19N, R 7E, S 19, 20, 30
Rackerby 2002 Quadrangle: T 19N, R 6E, S 13



Map Date 9/18/2019

Rackerby 2002 Quadrangle: T 18N, R 6E, S 1, 2, 3 : T 19N R 6E, S 26, 34, 35
Challenge 2000 Quadrangle: T 19N, R 6E, S 25, 36 : T 18N, R 6E, S 1



● Service Meter Locations

0 0.5 1 Kilometers

0 0.5 1 Miles

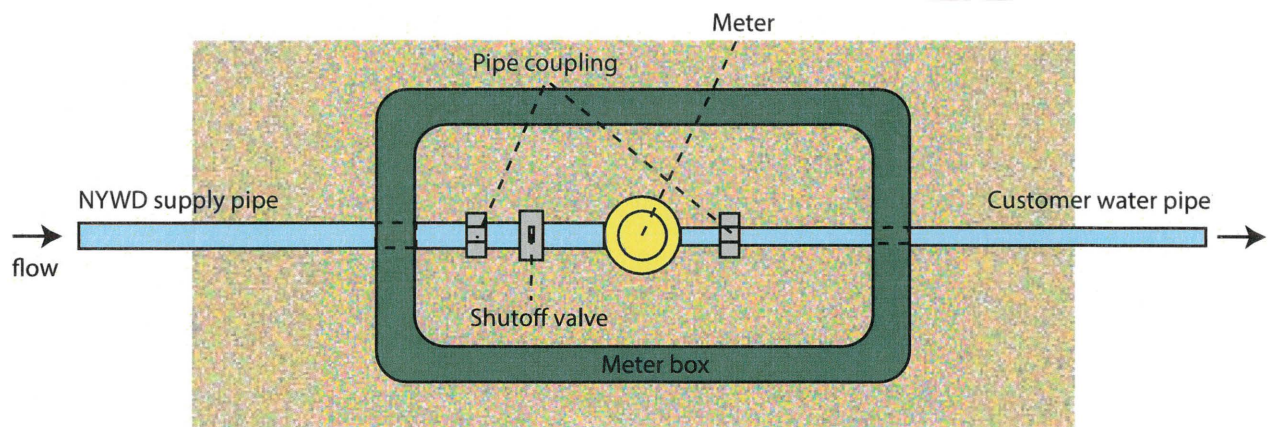


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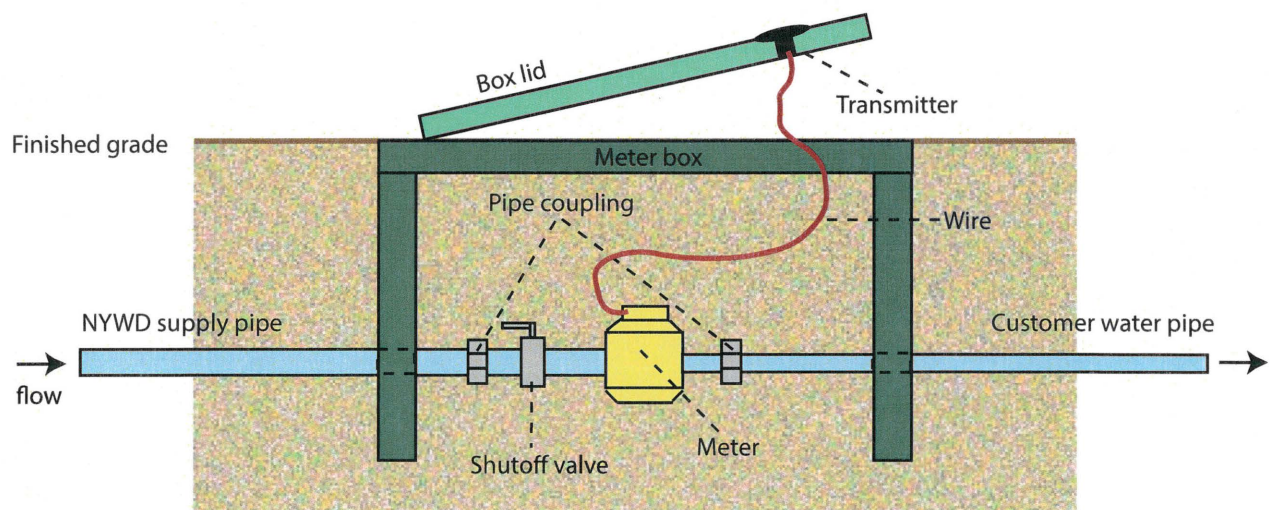
North Yuba Water District
Project Location Map
Map 4 of 4



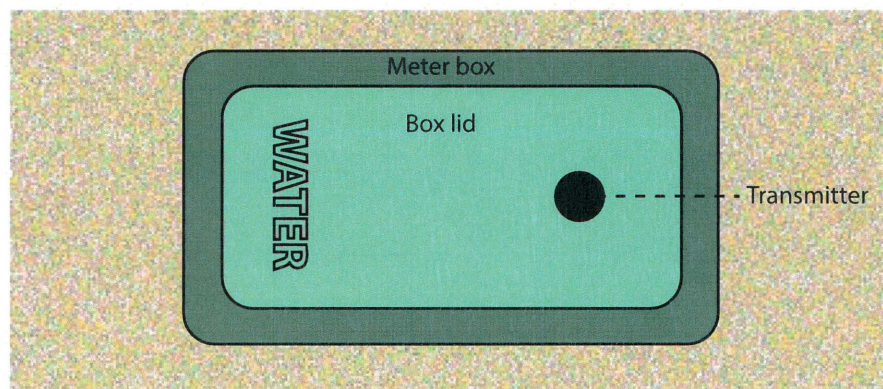
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PLAN VIEW OF METER BOX WITH LID REMOVED



PROFILE VIEW OF METER BOX WITH LID RAISED



PLAN VIEW OF METER BOX WITH LID ON

Diagram of service meter box
NYWD Service Meters Replacement Project



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APPENDIX 1. BIOLOGICAL RESOURCES ASSESSMENT

Natural Investigations Co., Inc. 2020. Biological Resources Assessment for the North Yuba Water District Challenge Tank Replacement Project and the Water Service Meters Replacement Project, Yuba and Butte Counties, California. Prepared for State Water Resources Control Board, Division of Financial Assistance.