



**WaterSMART:  
Water Recycling and Desalination Planning  
NOFO: R23AS00076**

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**City of Yuba City**

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**WWTF ADVANCED TREATMENT AND RECYCLED WATER  
FEASIBILITY STUDY**

Prepared For:

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February 28, 2023

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## Technical Proposal and Evaluation Criteria

### EXECUTIVE SUMMARY

**Date:** February 28, 2023  
**Applicant Name:** City of Yuba City Public Works Department  
**City, County, State:** City of Yuba City, Sutter County, CA  
**Application Type:** Funding Group I

**Project Summary.** The City of Yuba City (City), located in Northern California, is requesting \$249,999 in BOR funding to conduct a feasibility study to convert the Wastewater Treatment Facility (WWTF) to a tertiary treatment plant with a conveyance system to distribute recycled WWTF effluent to recycled water customers. A completed planning and environmental study that meets BOR requirements will position the City to receive future BOR WaterSMART grant funding for design and construction. Based on the City's 2020 WWTF and Collection System Master Plan, projected flows for the buildout project within the 24 square mile of influence (SOI) is a maximum of 14.5 MGD. As a result of this project, the City could recycle 100% of this water. **This feasibility study is crucial to supplying the region with sustainable recycled water sources as it copes with diminishing water supplies due to recurring drought and climate change.**

**Project Timeline.** The City is ready to begin the project immediately following the execution of the grant agreement, which is estimated to be October 2023. The Project and grant closeout can be completed within 24 months, with an estimated completion date of October 2025.

**Federal Facility.** The proposed project area is not located within a Federal facility. However, the proposed project will result in discharging tertiary-treated effluent to the Feather River. As such, the City will coordinate with the SWP and the California Department of Water Resources (DWR) to ensure environmental compliance regarding operations.

### PROJECT LOCATION

**City of Yuba City.** The City of Yuba City (population of 70,776 – U.S. Census Bureau, 2021) is located within Sutter County in California's Sacramento Valley, on the western bank of the Feather River (**Attachment: Exhibit A**). Primarily undeveloped agricultural land exists to the north, west, and south of the City. The City is a mid-sized valley agricultural community, whose population nearly doubled every 20 years through the year 2000 and, historically, has outpaced overall Sutter County growth. Yuba City is the County Seat for Sutter County and serves as the trading and service center for the surrounding agricultural areas. Most economic activity is attributed to agriculture and support businesses, including agricultural processors, retail, medical, and other government and private service providers. Yuba City also serves as a residential base for a commuter population to nearby Sacramento and its economically growing metropolitan region. Yuba City provides both water and wastewater services to its community. The City's existing service area is approximately 15 square miles. The existing wastewater collection system service area includes an approximate 7.1 square mile portion of the area within the City limits and a small area outside the City limits near the Hillcrest area. The City currently provides water service to approximately 18,974 residential, commercial, irrigation, industrial, institutional, and governmental service connections. The Sphere of Influence (SOI) for the City encompasses approximately 24 square miles. Additionally, the Bogue Stewart area,

which is an approximate one square mile area south of the southern boundary of the SOI, is also expected to be served by the collection system. Yuba City's water supply and wastewater services are managed by the City's Utilities Department, which operates the Water Treatment Plant (WTP), Wastewater Treatment Facility (WWTF), and Laboratory.

**Yuba City Water System.** The City operates a potable water system to provide water service to its customers. The major features of this system include the City's diversion on the Feather River, WTP, WWTF, and the numerous pipes, storage tanks, and pump stations. The potable water distribution system is a single-pressure zone with approximately 275 miles of pipeline, a High Lift Pump Station (HLPS), and five booster pump stations that pump from five ground-level tanks. At this time, the City's system includes one backup/standby groundwater well located at the WTP, which periodically is used as a raw water source and fed into the treatment plant. No infrastructure or systems currently exist to support recycled water within the City's distribution system. However, the City's wastewater treatment plant uses a small quantity of treated wastewater effluent for irrigating onsite landscaping and plant processes. Distribution pipeline sizes generally range from 2 inches to 12 inches in diameter, while larger transmission mains range from 14 inches to 36 inches in diameter. Over 80 percent of the water distribution system comprises asbestos cement (55 percent) or ductile iron pipe (27 percent).

**Yuba City Water Treatment Plant.** The WTP includes two water treatment processes in parallel treatment facilities. The WTP has a capacity of 30 million gallons per day (MGD). The original WTP was placed in service in 1969, and has a conventional filtration treatment process that includes a pretreatment system, four rapid sand filters, and a chlorine disinfection system. The City installed a new membrane filtration treatment facility that operates in parallel with the conventional filtration facility and a new 4 million gallon (MG) baffled clearwell for disinfection contact time in 2007. Backwash water from the membrane and granular media filters is sent to one of the two operational wash water percolation basins. Approximately 500,000 to 600,000 gallons of filter backwash water are sent to the operational basin on an average day. The City's waste discharge requirements for the WTP allow up to 1.0 MGD monthly average dry weather discharge flow.

**Wastewater Collection, Treatment Systems, and Disposal.** The City owns, operates, and maintains a wastewater collection, treatment, and disposal system that provides sewerage service for the entire area served by the City water supply, except for those customers utilizing seepage tanks. The City's WWTF is a secondary treatment plant facility with a pure oxygen-activated sludge process designed to handle high biochemical oxygen demand loadings from the local food processing facilities. Secondary effluent is disinfected using chlorine gas, dechlorinated, and discharged to rapid infiltration and evaporation ponds near the Feather River. Currently, the WWTF is discharging the entire flow between the percolation ponds and the point 003 temporary outfall. The ponds and point 003 discharge point are now used exclusively in place of discharge to the river through an outfall diffuser, which became exposed due to a river level change in 2011. The facility treats the domestic/commercial wastewater flows from the City and industrial flows. The plant also receives seepage. The WWTF started using secondary treated wastewater effluent for irrigating the onsite landscaping and plant

process uses in 2005. In 2015, approximately 196 million gallons (MG) of treated effluent was used at the facility. Of this, 196 MG 119 MG was used for irrigation, and the remaining was used for plant processes.

### **TECHNICAL PROJECT DESCRIPTION**

**Applicant Category.** Funding Group I

**Applicant Eligibility.** The City of Yuba City is eligible to apply for this funding opportunity. It is a full-service General Law City located in the northern part of the Sacramento Valley in California. The City owns and operates the Public Works Department, which includes the WTP and WWTF.

**Goals And Objectives.** The purpose of this proposed feasibility study is to identify a cost-effective strategy to increase Yuba City's capacity to produce and distribute reclaimed water to its water customers (primarily for irrigation and agriculture), and groundwater recharge, and 2) improve water quality through advanced tertiary treatment technologies for beneficial use that is protective of public health and the environment. The City will procure a qualified and experienced consultant to lead and conduct a comprehensive feasibility study.

**Description of Project Approach.** The feasibility study is the first of many steps in a 20-year plan to convert the WWTF into a tertiary treatment plant and necessary conveyance system to distribute recycled WWTF effluent to recycled water customers, the Feather River, and groundwater recharge. The study will meet the federal requirements WTR 11-01 and comply with the California State Revolving Fund (SRF) eligibility requirements. Among key state guidance documents: "Water Recycling Funding Program Guidelines," Amended October 16, 2019. *Note:* It is essential to the City that the resulting feasibility study also provides the necessary foundation for state SRF applications. The feasibility study will meet DWR requirements to ensure funding eligibility on the state level and help the City qualify for state and federal construction funding in future projects, to offset matching fund requirements. Projects needed to upgrade our plant to tertiary with recycled water amount to approximately \$200 million, plus inflation, based on the City's 2004 Water Master Plan and 2018 Wastewater System Master Plan Update. In addition to SRF obligations, the City would also ensure that the feasibility study meets the requirements to support future funding requests, including:

- WaterSMART Planning and Project Design Grants
- WaterSMART Environmental Compliance activities for water recycling projects
- California State Water Resources Control Board Water Recycling Funding Program
- FEMA Hazard Mitigation Grant Program

The resulting feasibility study will meet all current standards for feasibility studies necessary to qualify for future WaterSMART construction grants to upgrade WWTF processes and augment water supplies through recycled water from plant effluent. The City intends to use this grant opportunity to fund 50% of the feasibility study with a 50% non-federal match to convert the WWTF to Advanced Treatment and recycled water conveyance to customers. The study will also inform the initial process upgrade, which includes nitrogen removal for dewatering plant return flow. Herwit Engineering is currently working on a project which includes a predesign report outlining a \$14 million nitrogen removal process (in 2023 dollars) to treat screw press return flow. This would reduce ammonia in the final effluent by about half. According to the Water Master Plan, the estimated cost for nutrient removal (in 2018 dollars) is between \$80

and \$98 million. The cost to upgrade all other processes is estimated at \$103 million. An additional nitrogen reduction process will be needed to meet tertiary water quality standards.

### **EVALUATION CRITERIA RESPONSES**

#### **Evaluation Criterion 1: Project Planning and Analysis (30 points)**

**Subcriterion 1. A. Water Recycling Needs and Opportunities (15 points)** California is currently experiencing the worst drought conditions in over a century, and the City of Yuba City must ensure that reliable and adequate potable water supplies are available for its 70,776 residents, including over 33,618 disadvantaged residents. The City provides water service to approximately 18,800 residential, commercial, irrigation, industrial, institutional, and governmental service connections. Notable large industrial water customers are Yuba City Energy Center, Greenleaf Unit 2 & Associates, Sunsweet Growers, and Valley Fine Foods. The City's average annual growth rate between 2010 and 2019 was 1.17%. It is estimated that by 2035, the population will increase to 80,870 and 105,270 by 2060. As the population in the area continues to grow, so will the water demand. As severe drought continues to impact the County, water shortages in the future may worsen, as the City relies primarily (90%) on surface water from the Feather River.

A main issue to be mitigated is the potential lack of adequate potable water during times of drought in Yuba City. The City is almost entirely dependent on outside water agencies and sources to supply drinking/potable domestic water to the residents, and is currently unable to treat and store the City's full allocation of surface water during wet years if not used. This leaves the City extremely vulnerable to drought situations. The City obtains water for its water system through four permits/contracts from the Feather River. The Feather River is a tributary to the Sacramento River and provides the primary watershed for the State Water Project (SWP). The City purchases surface water from the California Department of Water Resources (DWR) under the SWP. Annual withdrawals are limited to 9,600 acre-feet per year (AFY). This contract is primarily supplemental to the North Yuba Water District (NYWD) contract for July and August. However, water from this contract can be used during any month. Full allocations have been reduced several times since 1990. In 1990 and 1991 allocations were reduced to 20%, in 1992 the allocations were reduced to 45%, in 2014 the allocation was 5%, and in 2015 the allocation was 25%. Currently, the 2022 allocation was reduced to 5% or 480 AFY. Therefore, these contracts have the possibility of considerably affecting the City's water supply, particularly under severe drought conditions.

California is facing a significant shortage of water following another dry winter, which prompted the State to issue Executive Order N-7-22 requiring all urban water suppliers to reach a target of 20% water conservation due to projected water supply shortages. To meet the state conservation target and conserve the City's limited water supply, the City Council elected to enter Stage 3 (Severe Shortage) of the City's Water Shortage Contingency Plan with a designated 20% reduction target, which includes mandatory water use prohibitions. Implementation of mandatory water restrictions began on May 1, 2022.

**Existing Water Supplies.** The primary water supply source for the City is surface water from the Feather River. The City's existing surface water sources include two appropriative water rights regulated by the State Water Resources Control Board and two surface water supply contracts. Water is diverted from the Feather River at a single location approximately 2.4 miles upstream from the confluence of the Feather and Yuba Rivers. The City's water supply reliability varies, based on its appropriative water rights and contracts. The City's appropriative water rights do not allow summertime diversion, so the City uses its supply contracts to provide summertime supply. The City's appropriative water rights have been reduced in very dry years, such as 1977, 1991, 1992, 2014, 2015, 2021, and 2022.

**Existing and Future Water Demands.** In recent years, the City's annual water production from surface and groundwater supplies has ranged from 4,200 million gallons per year (MG/yr) (11.6 million gallons per day (MGD) to 6,200 MG/year (17.0 MGD). The City's water use has generally declined since 2007, with water use decreasing during the Great Recession, rebounding in 2012 and 2013, and declining again during the recent drought. Conservative water system demands used in evaluating the distribution system are based on the City's annual water production of 5,600 MG/year (15.3 MGD) in 2013—average annual use over the period 2017-2022 was 12.4 MGD. In the last two decades, California has experienced drought conditions in an increasing manner year after year. By 2050, the severity of widespread summer drought is projected to almost triple (<https://tinyurl.com/mwszvret>). California has enacted regulations on water use efficiency that will impact the City's future water use. The 2009 Water Conservation Act (also known as Senate Bill X7-7 or SB X7-7) established water conservation targets that urban water retailers must meet by 2020. Executive Order B-37-16 provides a framework for strengthening those water conservation targets for urban water users to further increase water use efficiency by 2025. Specific requirements and methodologies to comply with the Executive Order are still under development. The City's Urban Water Management Plan identifies using recycled water as a viable way to increase the City's water supply and "close the gap" between future supply and demand.

**Water Service Reliability.** Historically, SWRCB License 13855 and the North Yuba Water District (NYWD) have been reliable water sources. In normal and dry year conditions, the City's appropriative water rights—License 13855 and Permit 18558—vary in their availability depending upon hydrological and regulatory conditions. In normal and wet years, License 13855 is available as many as 10 months of the year, but in dry and critically dry years, the right may be curtailed for up to 5 months. Similarly, Permit 18558 is normally available for eight months of the year and, in dry and critically dry conditions, may be available only five months of the year. License 13855 is one of the City's older permits, and drought restrictions have only been applied twice—in 1977 and 1992. In 2014, SWRCB License 13855 was curtailed June-October, and Permit 18558 was curtailed March-October. In 2015, License 13855 was curtailed May-October, and Permit 18558 was curtailed May-November.

Yuba City's water service reliability hinges on the active management of the City's water supply portfolio to meet its demands. Even though the City's total annual water supplies are enough to meet the City's current annual water demands, the monthly availability of each supply must be

actively managed to meet the City's monthly water demands over the course of any given year. In addition, the supplies must be even more carefully managed to provide sufficient water supplies to meet the monthly demands during extended dry conditions. The fundamental management tenet for Yuba City's water service reliability in dry periods is to preserve as much water supply during normal and wet conditions to make those water supplies available during dry conditions. With continued population growth, extended drought conditions, and expected yearly restrictions, the City's water supply is vulnerable to disruptions and the possibility of demand far exceeding imported supplies. The City must secure additional water supplies for reliability and long-term growth of the City.

**Planning Activities.** This priority Project is supported by and meets the goals of the City's 2020 Urban Water Management Plan (UWMP) and 2020 Wastewater Treatment Facility and Collection System Master Plan. These documents represent an overarching priority of water conservation, reliability, treatment, storage, and reuse in Yuba City.

**Yuba City 2020 Urban Water Management Plan.** The City prepared its 2020 UWMP to comply with the Urban Water Management Planning Act (UWMPA) requirements for urban water suppliers. It addresses the City's water management planning efforts to assure adequate water supplies to meet forecast demands over the next 25 years. As required by the UWMPA, the City's 2020 UWMP specifically assesses the availability of its supplies to meet forecast water uses during average, single-dry, and five consecutive drought years through 2045. Verification that future demands will not exceed supplies and assuring the availability of supplies in dry-year conditions are critical outcomes of this 2020 UWMP. The City recognizes the importance of maintaining a high-quality, reliable water supply. Although water is a renewable resource, it is limited. A long-term reliable water supply is essential to protect the local and state economy. The main focus for the City is to provide high-quality water, maximize the efficient use of water, and promote conservation.

**Yuba City 2020 Wastewater Treatment Facility and Collection System Master Plan.** This plan identifies cost-effective strategies for meeting the City's WWTF and collection system infrastructure needs, guides capital expenditures, presents infrastructure renewal and replacement strategies and provides a comprehensive road map for future WWTF planning.

**Potential Uses and Markets.** Tertiary recycled water is produced by advanced treatment processes that remove contaminants and impurities, making it safe for non-potable uses such as irrigation, industrial processes, and non-potable urban uses. Currently, no infrastructure or systems currently exist to support recycled water within the City's distribution system. However, the City's wastewater treatment plant uses a small quantity of treated wastewater effluent for irrigating onsite landscaping and plant processes. The City's service area, based on market assessment results, includes large existing users, large or grouped future outdoor users, and agricultural lands within Yuba City's service area. In addition, future parks, recreation, and open space areas, outside the city limits but within the sphere of influence (SOI) as identified in the Yuba City General Plan, are considered as potential recycled water users. Future potential recycled water users within the Yuba City SOI include planned public, residential, industrial, and



commercial developments based on the Yuba City General Plan. Future parks, schools, and residential and commercial developments are also included as potential recycled water demands.

**Water Sources.** The City's four surface water supplies are: (1) a State Water Project contract; (2) a State Water Resources Control Board water right license; (3) a State Water Resources Control Board water right permit; and (4) a contract with North Yuba Water District, all sourced from the Feather River. These sources provide significant annual volumes of water to meet user demands. However, the details embedded in each water right and contract impact the monthly availability of each surface supply source. This limited availability requires the City to carefully manage its water supply portfolio to have sufficient water supply available in extended drought periods. The City also has access to groundwater resources and anticipates additional diversification of its supply portfolio to maximize the utility of these resources.

The City holds a State Water Project Contract (SWP Contract) to obtain water supplies derived from the SWP. The State Water Project is the largest state-built, multi-purpose water project in the country. Today, the SWP includes 28 dams and reservoirs, 26 pumping and generating plants, and approximately 660 miles of aqueducts. The primary water source for the SWP is the Feather River, a tributary of the Sacramento River. The water flowing in the Feather River is captured by the SWP in the Oroville dam and reservoir. Storage released from Oroville Dam flows down the Feather River and then the Sacramento River until it reaches the Sacramento-San Joaquin River Delta (Delta). The SWP diverts, stores, and distributes water to 29 agricultural and urban suppliers throughout Northern, Central, and Southern California. Approximately 70 percent of the SWP supply is contracted for urban uses, and 30 percent is contracted for agriculture.

The City holds State Water Resources Control Board (SWRCB) issued appropriative water right License 13855. License 13855 has a priority date of March 5, 1958, and can be diverted from the Feather River from January 1 through July 1 and September 1 through December 31 each year with a maximum diversion rate of 15.6 cubic feet per second (cfs) and total volume not to exceed 6,500 acre-feet per year. The water supply may be used for municipal purposes anywhere in the City's Sphere of Influence "Based on 2004 Updated General Plan."

The water supply under License 13855 is generally reliable monthly in normal years. Although the supply is never available in July and August, the relatively young priority date of 1958 renders this water right susceptible to curtailment in certain dry years. Specifically, the water right was curtailed in 2014 and 2015 and again in 2021 and 2022. Thus, the likelihood that the water supply will be curtailed in the future may increase in dry conditions as system demands increase, runoff patterns change from climate conditions, and regulatory conditions limit diversions during certain times of year. Accordingly, in single dry and multiple dry years, the water asset may be unavailable beyond the monthly diversion limitations noted in the license.

The City holds State Water Resources Control Board (SWRCB) issued appropriative water right Permit 18558. Permit 18558 has a priority date of 1978 and can be diverted from the Feather River from January 1 through June 30 and October 1 through December 31 each year with a

maximum diversion rate of 21 cubic feet per second (cfs) and total volume not to exceed 9,000 acre-feet per year. The water supply may be used for municipal purposes anywhere in “Yuba City’s Sphere of Influence Based on 2004 Updated General Plan.”

Water supplies under Permit 18558 are less reliable than other City surface supplies because Permit 18558 includes both months where diversions are not allowed (July through September) but are also subject to “Term 91.” Term 91 is a special Permit condition that further limits the utility of SWRCB-issued appropriative water rights. Term 91 is declared by the SWRCB when it is determined that the SWP and U.S. Bureau of Reclamation’s Central Valley Project (CVP) are required to release stored water in excess of low natural flow to meet Sacramento Valley in-basin uses plus export demands. In short, when Term 91 is activated, the City is denied water under Permit 18558. Term 91 was declared in water years 2016, 2018, and 2020.

In 2010, the City and North Yuba Water District (District) entered an agreement to extend the existing water supply agreement between the City and District through 2035 (Agreement). The Agreement authorizes the District to provide up to 4,500 acre-feet of water per year on a prescribed monthly delivery schedule from April through October. The water made available under the Agreement is for domestic, municipal, and industrial purposes for uses at locations that are “both within the City’s service area and within the authorized place of use specified in Amended Permit 11518.”

#### **Subcriterion 1.B. Evaluation of Project Alternatives (15 points)**

The feasibility study will identify alternatives for converting the City’s WWTF to a tertiary-treatment facility with conveyance systems to distribute recycled water. Tertiary wastewater treatment is an advanced treatment that goes beyond the secondary treatment process to remove more contaminants from the wastewater. The following system improvements and their alternatives will be evaluated:

1. Side-stream ammonia treatment process.
2. Conversion of Reactor to biological nutrient removal (BNR) technology.
3. Conversion of high-purity oxygen system to high-efficiency blower/bubbler system.
4. Installation of tertiary filtration in final stages of effluent treatment.
5. Conveyance system to distribute recycled WWTF effluent to potential customers.

Overall, the objective of tertiary wastewater treatment is to produce high-quality effluent that can be safely discharged into the Feather River, groundwater recharge, and irrigation, and/or reused for non-potable purposes. The Consultant will evaluate the potential reclaimed water market, including barriers to using water, required permits for completing the project, utilizing reclaimed water upon project completion, and identifying and evaluating feasible alternatives. The result will be a report documenting possible alternatives, and a recommended course of action, considering the technical, environmental, economic, and institutional feasibility of the project, and the steps necessary to move toward implementation.

**Effluent Disposal Alternatives.** Currently, the City discharges the treated water to the Feather River or effluent disposal ponds on the east side of the river. The secondary effluent is disinfected with chlorine gas, followed by dechlorination using sodium bisulfite. The Capital

Improvement Project (CIP) cost included in the Master Plan Update was developed assuming continued discharge of secondary treated effluent to the Feather River. It is likely that effluent discharge requirements may become more stringent in the future. To address more stringent effluent criteria, the costs were also estimated for other effluent discharge alternatives, as follows:

1. Discharge to Feather River meeting California Toxics Rule (CTR) requirements (without nanofiltration) - \$5,000,000.
2. Discharge to Feather River with filtration followed by UV - \$35,000,000.
3. Discharge to Feather River with nanofiltration - \$23,000,000.
4. 100% recycling with effluent storage and pumping - \$41,200,000 for the chlorination/dechlorination option and \$71,000,000 for the UV option.
5. Provision of nitrification, which includes upgrades to the membrane bioreactor (MBR) system and provision of the pure oxygen-activated system (POAS) system - \$6,000,000.

**Proposed Feasibility Study.** The WWTF, originally built in 1975, was redesigned in 2003 to treat an average flow of 10.5 million gallons per day (MGD) with an average organic loading of 44,000 lbs/day biological oxygen demand (BOD) and 16,000 lbs/day total suspended solids (TSS). Yuba City's current average daily flow is about 6.5 MGD. The redesign of the facility enabled Yuba City to provide wastewater treatment for projected growth over the next ten years. It is a Class IV Wastewater Treatment Facility with a pure oxygen-activated sludge process designed to handle high and variable BOD loads from local food processing facilities, commercial facilities, and residential areas. The facility consists of four main treatment processes. Preliminary treatment consists of bar screens to remove large objects such as plastics, metals, rags, and paper from the influent wastewater, an aerated grit chamber to remove grit (sand, cinder, bone chips, seeds, coffee grounds, eggshells etc.). Primary treatment includes two primary clarifiers to remove approximately 26% to 30% of the Biochemical Oxygen Demand (BOD) and 60% to 70% of the total suspended solids (TSS). Secondary Treatment consists of a High Purity Oxygen (HPO) activated sludge process to remove the remaining BOD through the biological process and secondary clarifiers to allow the bacteria used in the process to be recycled (RAS) within the facility. Secondary effluent is disinfected with chlorine followed by de-chlorination and then discharged into the Feather River (point 003) or percolation ponds located on the east side of the Feather River in the river flood plain. The City uses only a limited amount of recycled water for plant processes and irrigation at the WWTF.

The following WWTF system improvements will be evaluated during the feasibility study:

- Side-stream Ammonia Treatment Process: Estimated \$14 million (HERWIT Draft Digester and Solids Handling Predesign Report, January 2023). The 2019 digester improvements increased solids dewatering efficiencies, which led to a significant increase in ammonia in the dewatering filtrate. High ammonia has been tied to toxicity test failures in the WWTF final effluent sampling. Preliminary data indicates ammonia side stream treatment would significantly lower these levels. However, further ammonia reduction treatment processes will be required to produce usable recycled water.
- Conversion of Reactor to Biological Nutrient Removal (BNR) Technology or Alternate Nutrient Removal: Estimated \$40 million - \$70 million (2020 Wastewater Master Plan).

Other technologies to be evaluated include those that will help achieve complete nitrification/denitrification. The need for nutrient removal technology is addressed in the City's 2020 Master Plan.

- Conversion of High-purity Oxygen System to High-efficiency Blower/Bubbler System. The systems are addressed in the City's 2020 Master Plan.
- Installation of Tertiary Filtration in Final Stages of Effluent Treatment: Estimated \$20 million - \$30 million (2020 Wastewater Master Plan). Tertiary treatment is used to remove suspended solids from the final effluent. In addition to evaluating cloth media, the study will evaluate mixed media sand filtration and membrane technology. Tertiary Treatment also removes materials such as heavy metals, toxic chemicals, and other pollutants. Industrial wastewater containing these materials will directly affect aquatic life and human health. This treatment is addressed in the City's 2020 Master Plan.
- Conveyance System to Distribute Recycled WWTF Effluent to a Wildlife Refuge, Irrigation, Farmers, and Other Customers: The potential market for recycled water within the Yuba City SOI would be along the Garden Highway heading south to Bogue. On the north side of Bogue, purple pipes could be installed as part of the developments under Bogue-Stewart Master Plan and the Lincoln East Specific Plan. The agricultural customers would likely be located outside the sphere of influence on the south side of Bogue. The pipeline would need to extend approximately six miles south of town to reach the Sutter National Wildlife Refuge. This study will include evaluation and planning for force main installation along Bogue and Garden Highway under Bogue-Stewart Master Plan (cost estimates not yet developed). This conveyance system is addressed in the 2007 Yuba-Sutter Regional Recycled Water Master Plan.

**Expected Benefits.** The proposed project will contribute to the following:

1. Increase the amount of recycled water produced to six to 14.5 MGD.
2. Improve Feather River water quality by removing additional pollutants and contaminants, which will improve water quality in the Bay-Delta.
3. Assist the City in complying with stricter water quality regulations.
4. Increase reliability and sustainability of imported water supplies, including the State Water Project (SWP) and Feather River, which are at risk due to climate change. The reliability of a water supply refers to the ability to meet water demands on a consistent basis. During severe drought conditions the water supplied to Yuba City by a SWP contract could be limited to 10% of the full allocation (i.e., reduced from 9,600 AFY to 960 AFY. This represents roughly one-third of Yuba City's total water supply. By supplying landscape irrigation customers with 6,800 AFY of recycled water, the proposed project will offset Yuba City's dependence on SWP water, thereby reducing water supply vulnerability. Delivery of recycled water not used for landscape irrigation will be delivered to agricultural customers, which will alleviate the effect of water delivery bottlenecks constraining the current supply of groundwater.
5. Improve the WWTF's efficiency and operational flexibility by streamlining the movement of wastewater through a conveyance system and reducing energy and maintenance costs.

**Project Tasks.** The proposed Project will be completed within the 24-month Project performance period. While details regarding specific Project tasks and activities will be refined by the Consultant selected through the RFP process, it is anticipated that Project Tasks will include, but are not limited to, the following activities listed in **Attachment: Exhibit D**.

**Estimated Project**

**Schedule.** The proposed feasibility study will be conducted during a 24-month period ending with a completion date of October 2025 (**Table 1 and Attachment: Exhibit E**).

**Permits/Permit Process.**

No permits will be required to implement the Project.

**Engineering and Design**

**Work.** The proposed Project will include preliminary engineering design work.

FEASIBILITY STUDY									
Table 1. Project Schedule									
Timeline/Workflow	2023	2024				2025			
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Award Notification									
Execute Grant Agreement									
RFP Process/Contract Negotiations and Approvals									
Grant Project Management									
Kick-off Meeting w/ Consultant									
Consultant Conducts Feasibility Study									
Consultant to Prepare Draft Report									
Consultant to Prepare Final Report									
SF-425 Bi-annual Financial Report									
Administration Reports to BOR									
Final Performance Report to BOR									

**Policies and Administrative Actions.** The City Council approved Resolution 23-019 on February 21, 2023, authorizing the submission of this grant application to Reclamation (**Attachment: Exhibit L**).

**Evaluation Criterion 2: Stretching Water Supplies (20 points)**

A tertiary treatment plant and conveyance system have the potential to stretch Yuba City's water supply by reducing pressure on existing water supplies. By reusing treated wastewater for non-potable applications, such as groundwater recharge, agriculture, industrial uses, and fire suppression, the demand for potable water can be lessened. As more water is recycled rather than discharged into the Feather River, it reduces the loading of pollutants from urban runoff that can compromise fish and wildlife. All these factors contribute to sustainability and environmental stewardship.

The proposed project will provide an effective solution to water supply challenges faced by Yuba City. These specialized technologies can help alleviate pressure on existing water supplies and the WWTF by providing a dependable, sustainable source of reclaimed water. In addition to providing potable water reuse, converting to a tertiary treatment plant and conveyance system will help reduce the strain on other resources by transporting treated wastewater away from areas where it could become a public health hazard. This ensures that the water is not discharged into nearby lakes, rivers, or other bodies of water, which could further pollute them and damage fragile ecosystems. Furthermore, these systems help ensure that treated

wastewater can be safely reused for agricultural irrigation, firefighting activities, etc., thus helping to conserve this precious resource.

**Water Supply Shortages.** The tertiary treatment plant and conveyance system to be developed by the City is an innovative and practical solution to preventing water shortages in the area. The system uses modern technology to filter out pollutants, bacteria, and other contaminants from the water supply, to ensure that it meets the highest quality standards. At the same time, the process also helps increase water storage capacity for times of drought or high demand. By providing an efficient way to treat wastewater and increase storage capacity, this tertiary treatment plant and conveyance system will help Yuba City address water shortages sustainably. The process ensures that there are enough supplies available in case of emergencies or natural disasters. In addition, the system helps conserve energy by reducing evaporation losses and reducing greenhouse gas emissions from sewage. Ultimately, the tertiary treatment plant and conveyance system will become an essential part of Yuba City's efforts to increase its water resiliency.

**Water Supply Reliability.** The proposed project will address water supply reliability by:

Diversification of water supply: By treating and reusing wastewater, a tertiary treatment plant will provide a reliable and sustainable source of water that is not dependent on surface water or groundwater supplies. This can help to diversify the water supply portfolio and reduce reliance on a single source of water.

Reduced reliance on surface water: By providing an additional source of water, a tertiary treatment plant and conveyance system can reduce reliance on surface water, particularly during drought conditions or other periods of low water availability. This can help to ensure that water is available for critical uses, such as drinking water, without relying on surface water that may be limited or contaminated.

Reduction of water demand: A tertiary treatment plant will help reduce overall water demand in the community by providing a new source of water for non-potable uses such as irrigation, fire suppression, industrial processes, and groundwater recharge. This can help to preserve existing water resources and reduce the need to develop new supplies.

Improved management of wastewater flows: By upgrading the wastewater treatment plant, the City will improve the management of wastewater flows and reduce the risk of sewer overflows and other issues that can impact the reliability of the water supply.

**Water Quality Issues.** The proposed project will address water quality issues in the Feather River by removing a wide range of pollutants from wastewater to a very high level, including nutrients, pathogens, and organic matter. By removing these pollutants from wastewater, the system will reduce the overall load of pollutants that enter the Feather River, or groundwater, improving its water quality. A new tertiary treatment plant will also provide enhanced monitoring and management of water quality in the Feather River. By tracking water quality, flow rates, and other factors, the system can help to identify potential issues and take corrective action as needed to protect the river's water quality. The effluent from a tertiary treatment plant will be used to augment instream flows in the Feather River during dry periods.

This can help to support aquatic habitat and improve the overall health of the river's ecosystem.

**Drought Response.** By treating wastewater for reuse, the converted system will help the City stretch its water supplies further, reduce reliance on existing sources, and provide an important source of supplemental water that can help ensure a reliable supply during dry periods when other sources may not be available. This is especially beneficial during drought when existing water sources become scarce. The recycled water will be available for use during drought however, the quantities may be reduced by conservation efforts. In addition, the proposed project will help reduce stress on natural water systems and allow them to recover more quickly after the drought ends. The new system will also allow for greater control over the quality of reclaimed water. By conveying the treated wastewater for beneficial use, the City can utilize its resources more efficiently while maintaining the reliability and diversity of its water supply despite persistent drought and climate change impacts. As a result, the City will reduce pressure on the Feather River and ensure that resources are prioritized for local use first. These improvements not only benefit the City but can also contribute to a sustainable regional water management strategy.

### **Evaluation Criterion 3: Environment and Water Quality (20 points)**

Including the benefits mentioned above, the proposed project will help improve the quality of both surface water and groundwater by:

Reduction of groundwater pumping: By providing a new source of treated wastewater for non-potable uses such as irrigation, a tertiary treatment plant will help to reduce the demand for groundwater. This can reduce the need to pump groundwater and help to alleviate groundwater depletion.

Recharge of groundwater: In addition to reducing pumping, a tertiary treatment plant will provide a new water source for groundwater recharge, helping to replenish the groundwater supply and increase its overall volume.

Enhanced monitoring and management: A tertiary treatment plant will enhance monitoring and management of groundwater resources. By tracking water use, levels, and quality, the system can help to ensure that groundwater resources are being used sustainably and responsibly.

Reduction of nutrient pollution: Tertiary treatment will remove nutrients, such as nitrogen and phosphorus, from wastewater. These nutrients can contribute to water pollution and can cause harmful algal blooms in surface water bodies. By removing these nutrients, a tertiary treatment plant and conveyance system can help reduce nutrient pollution and protect the quality of surface water and groundwater.

The proposed project will improve effluent quality beyond the levels required by state and federal regulations by:

Removal of emerging contaminants: Tertiary treatment can remove a range of emerging contaminants, such as pharmaceuticals, personal care products, and microplastics, that may not be regulated by state or federal standards. By removing these emerging contaminants, a tertiary treatment plant and conveyance system can help the City protect the environment and public health.

Removal of total dissolved solids (TDS): TDS are a measure of the total amount of dissolved salts and minerals in water, and high levels of TDS can cause water quality problems, such as increased salinity and reduced dissolved oxygen levels. Tertiary treatment can remove TDS from wastewater, which can help improve the quality of the effluent and reduce the potential for negative impacts on the environment.

Reduction of pathogens: While state and federal regulations require wastewater treatment plants to remove a certain percentage of pathogens, such as bacteria and viruses, tertiary treatment can potentially remove even more. By reducing the number of pathogens in effluent, a tertiary treatment plant and conveyance system can help reduce the potential for waterborne illnesses and protect public health.

Production of high-quality recycled water: Tertiary treatment can produce high-quality recycled water that can be used for various purposes, including irrigation, industrial processes, and even drinking water. By producing water that is of higher quality than required by state and federal regulations, a tertiary treatment plant and conveyance system can help increase public confidence in recycled water and promote its use in communities.

**Benefits to the Natural Stream Channel and Ecosystem.** In addition to the benefits already mentioned above, the proposed project will help improve flow conditions in the Feather River, restore, and enhance habitat for non-listed fish and wildlife species by:

Reduced pollutants: Tertiary treatment eliminates matter from wastewater that could be harmful to the environment. The process involves removing materials such as heavy metals, toxic chemicals, and other pollutants. Industrial wastewater containing these materials will directly affect aquatic life and human health.

Advanced wastewater treatment: Advanced treatment-activated sludge can help remove excess nutrients, such as nitrogen and phosphorus, from wastewater before it is discharged into the Feather River. Reducing nutrient loads in the river can help improve water quality and reduce the potential for harmful algal blooms, which can degrade flow conditions by reducing dissolved oxygen levels. Reducing nutrient loads in the river can also help promote the growth of aquatic vegetation and other primary producers, providing important habitat for fish and other aquatic species.

Improved water temperature: Discharging tertiary-treated effluent into the Feather River can help maintain stable water temperatures, particularly during dry periods when natural flow is low. By stabilizing water temperatures, a tertiary treatment plant and conveyance system can help improve habitat conditions for fish and other aquatic species that are sensitive to temperature changes.

Reduced sediment loading: Tertiary treatment can remove excess sediment from wastewater before it is discharged into the Feather River. Reducing sediment loads in the river can help improve water clarity and reduce the potential for channel degradation caused by excessive sediment deposition.

Improved water quality: Tertiary treatment can remove a range of contaminants, such as bacteria, viruses, and emerging contaminants, from wastewater before it is discharged into the Feather River. By improving water quality, a tertiary treatment plant and conveyance system can help support healthy aquatic habitats for non-listed fish and wildlife species.



Protection of ecosystems: By removing pollutants and reducing nutrient pollution, a tertiary treatment plant and conveyance system can help protect the health of local ecosystems, including rivers, lakes, and wetlands. These ecosystems are important for supporting fish and wildlife, providing recreational opportunities, and maintaining the overall health of the environment.

Decreased Discharged Effluent: Implementation of this project will reduce discharges from the WWTP to Feather River. Potentially 100% of WWTF effluent could be recycled and delivered to agricultural irrigators offsetting surface water diversions, and therefore does not represent a reduction in total Feather River flows.

**Wildlife Protection.** The proposed project will help the City address a current water supply shortage impacting several species that inhabit the Feather River. By implementing conservation projects, the City can reduce its reliance on surface water. The project will assist in minimizing surface water withdrawals taken from the Feather River, as provided through water deliveries from the State Water Project. Unprecedented low runoff from the Sierra snowpack resulting from unusually low precipitation, warm temperatures, and dry soils have resulted in significant water supply reductions. The recent rain in January, though helpful, is not enough. According to the U.S. Drought Monitor, Yuba City and Sutter County remain in D2 Severe Drought (**Attachment: Exhibit B**).

There are three special-status fish species known to occur in the Feather River adjacent to Yuba city: Central Valley DPS steelhead, Chinook salmon (Central Valley spring-run ESU), and North American green sturgeon (southern DPS). One or more life stages of these species may migrate through the Feather River. Low water levels can adversely affect endangered and threatened species. Prolonged drought impacts a river's Dissolved Oxygen content, streamflow, water quality, and available habitat necessary for sustaining the species which rely on them.

The proposed project could be used to provide recycled water to the Sutter National Wildlife Refuge if conveyance pipelines are extended to the refuge.

#### **Evaluation Criterion 4: Department of the Interior Priorities (15 points)**

**Combatting Drought and Climate Crisis.** Local and regional drought impacts are being negatively impacted and accelerated by climate change. Southern California is in the midst of a megadrought that researchers are saying is the driest 22-year period in 1,200 years, putting unprecedented pressure on local water supplies. The long-term availability of imported water from the SWP is in jeopardy. Persistent, historical drought, smaller surface water availability, and population growth have severely strained Yuba City's water supplies. For over a decade, California has experienced below-average rainfall, culminating in a drought that impacted many areas of the state, including the City of Yuba City, located in the Sacramento Valley. Since August 2020, Sutter County has been under moderate to extreme drought conditions. Sutter County is currently under Severe Drought Conditions (D2), according to the U.S. Drought Monitor (**Attachment: Exhibits B and C**). As a result of the drought, DWR adjusted its initial State Water Project (SWP) allocation for the 2021 water year to five percent of requested supplies this year, previously 10 percent. The City is currently in Stage 3 of its Water Shortage

Contingency Plan, which is triggered by a water shortage of up to 20%. This could have devastating effects on Yuba City as approximately 90% of the City's water supply is from surface rights from the Feather River, of which, up to 9,600 AFY (32% of the City's total surface water allocations) are supplied by SWP sources.

The population of Yuba City has been steadily growing since its incorporation in 1908. The City's average annual growth rate between 2010 and 2019 was 1.17%. It is estimated that by 2030, the population will increase by over 10,000, from 70,458 to 80,870 (Yuba City Urban Water Management Plan, 2020). In addition, drought conditions can trigger and exacerbate wildfire, which threatens the quality and quantity of available water and can have lasting effects for years due to ash and sediments introduced to the water supply. Wildland fire and the risk of a conflagration is an ongoing concern for the City. Most of the City is urbanized, with small areas of moderate wildfire risk. Wildfire threat within the City is generally low, with areas of moderate risk in the river bottoms and near waterways.

As stated above, approximately 32% of the City's water supply comes directly from the SWP sources in Northern California, which means that wildfires from across California can ultimately negatively impact Yuba City's water. Though there has been no significant wildland fire in the City's Wildland Urban Interface (WUI) area, Yuba City has suffered the impacts of numerous "mega-fires" that resulted in extreme air quality concerns, ash on agricultural products, and evacuees entering the Yuba City Urban Area including Bear Fire (2020), Camp Fire (2018), Tubbs Fire (2017), and Cascade Fire (2017).

Should the proposed project not be completed, the City will be ill-equipped to respond to this emergency and create a potential water shortage that could impact its residents, commerce, and agriculture. Severe drought may create potable water service interruptions, emergency fire service interruptions, and strict restrictions on water usage for agriculture. Yuba City is surrounded by fertile farmlands, which means agriculture greatly impacts the local economy. Yuba City is home to the largest dried fruit processing plant in the world, Sunsweet Growers Incorporated, and is one of the top five employers in the region. In an effort to build resiliency, the City currently implements several water conservation efforts and educational conservation outreach. However, these conservation efforts do not fully protect the City's water customers from the negative impacts of extreme drought conditions.

There have been two state (1976; 2014) and one federal (1976) disaster declarations from drought in Sutter County and Yuba City. The 2017 Yuba City Sanitary Survey notes: on January 17, 2014, a drought state of emergency was declared in California. This state of emergency was lifted on April 2, 2017. During this time, there was significantly less precipitation and runoff contributing to surface water sources, depletion of groundwater sources, restrictions on water use, and negative impacts on water quality. In Yuba City, the drought caused restrictions on water intake from the Feather River, more reliability on limited groundwater sources, and effects on water quality due to more stagnant water and algal growth. Additional drought conditions in Sutter County have reoccurred numerous times throughout history: 1912-1913 (1 year), 1918-1920 (2 years), 1923-1924 (1 year), 1929-1934 (5 years), 1947-1950 (3 years), 1959-

1961 (3 years), 1987-1992 (5 years), 1993-1994 (1 year), 2007-2010 (4 years), 2014-2017 (3 years), and 2020-2021 (ongoing). A new WWTF tertiary treatment plant and conveyance system will allow the City to potentially recycle 100% of WWTF effluent to be used for various purposes, including groundwater recharge, agriculture, irrigation, fire suppression, and other beneficial uses. The City expects to reduce its reliance on the Feather River—also negatively impacted by persistent drought and climate change.

**Water Sustainability and Climate Change Resiliency.** The proposed project will improve the WWTF's water efficiency, reduce overall water demand, and increase the resilience of the water supply system to drought and other climate-related stresses. The new system will strengthen water supply sustainability and increase resilience to climate change by producing high-quality effluent that can be used for groundwater recharge, agriculture, fire suppression, potable drinking water, and other uses, thereby reducing the demand for non-renewable water sources. Additionally, the tertiary treatment plant and conveyance system will help reduce energy and greenhouse gas emissions, thereby helping to mitigate further climate change impacts.

**Disadvantaged or Underserved Communities.** The project will provide multiple benefits to underrepresented Yuba City by increasing recycled water supplies, and likely reducing water rates. Water and sewer rates increased in June 2022, and if the drought continues as expected with significant reductions in water allocations, rates may increase again, placing the burden on water customers, including those already facing financial and economic impacts. According to the Public Policy Institute of California, more than 70% of urban water suppliers experience reduced revenues during times of drought. Most of their costs are fixed, and those costs still need to be paid and are often passed on to the customer (<https://www.ppic.org/blog/drought-makes-water-rates-rise/>). Rising costs are especially harmful to low-income and impoverished households which exist in the central and eastern portions of the City. Multiple census tracts in Yuba City qualify as DACs and/or SDACs, the entirety of the City qualifies as an economically distressed area, and many census tracts carry a heavy burden of pollution and poverty. The proposed project will benefit disadvantaged communities by increasing the City's water supply, producing cleaner water, ensuring affordable water rates, improving public health and safety, and enhancing fire suppression. Employing recycled water for irrigation and agriculture can also boost economic opportunities and create new jobs. By improving environmental outcomes, recycled water can reduce the amount of pollution which disproportionately impacts disadvantaged communities.

According to the Department of Water Resources DAC Mapping Tool, the entirety of Yuba City is identified as either a DAC/SDAC. Yuba City's disadvantaged communities face numerous disparities that create barriers to accessing resources and opportunities, and can disproportionately affect low-income and marginalized individuals, including:

Low-income and persistent poverty: According to the U.S. Census 2021, the poverty rate in Yuba City is 13%, which is higher than the state and national average. Additionally, a significant portion of the population in Yuba City lives below the poverty line and struggles to meet basic

needs such as food, housing, and healthcare. In 2021, the median household income (MHI) for Yuba City was \$64,225, compared to California's MHI of \$84,097.

Racial and ethnic residential segregation: Yuba City has a diverse population, with a significant portion of residents identifying as Hispanic or Latino. However, some neighborhoods in Yuba City are more segregated than others, and certain racial and ethnic groups are concentrated in specific areas. This can lead to disparities in access to resources, services, transportation, healthcare, and opportunities.

Linguistic isolation: A significant portion of the population (38%) in Yuba City speaks a language other than English at home. This can create barriers to accessing services and participating fully in the community, particularly for those who do not speak English fluently.

High housing cost burden: Yuba City has a relatively high cost of living, including high housing costs. This can create a significant burden for low-income residents and those living below the poverty line, who may struggle to find affordable and safe housing. The median property value in Yuba City was \$304,600 in 2020, which is 1.33 times larger than the national average of \$229,800. More than 45% of residents pay an average of \$1,900 in rent compared to 55% homeownership.

Other variables: Disadvantaged communities in Yuba City also face other challenges, such as limited access to healthcare, high levels of air pollution, and a lack of public transportation options. These challenges can disproportionately affect low-income and marginalized communities in the city.

The project will benefit these “underserved communities” as defined by Executive Order 13985, including those who have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life. The project promotes equitable access to recycled water supplies for all individuals, including underserved populations.

DWR - Disadvantaged Communities Mapping Tool. Yuba City's median household income (MHI) is \$60,910 compared to the state's \$78,672 MHI (**Attachment: Exhibit G**). Seven census tracts in Yuba City are identified as Historically Disadvantaged Communities (DACs) or Severely Disadvantaged Communities (SDACs). Specifically, census tracts 501.01, 503.01, and 505.01 are DACs and census tracts (501.02, 502.01; 502.02; 503.02) are identified as SDACs. Those identified census tracts account for 33,618 Yuba City residents, or approximately 48% of the total population (**Attachment: Exhibit H**).

CalEnviroScreen 4.0. CalEnviroScreen 4.0 identifies California communities by Census Tract that are disproportionately burdened by, and vulnerable to, multiple sources of pollution, health issues, low rates of education, and high poverty and unemployment rates. It is clear from the map that the Census Tracts south of Colusa Highway (Highway 20), and those on the east side of the City adjacent to the Feather River have a high burden of poverty and pollution. The same seven census tracts mentioned above rank at the 75th percentile or above (**Attachment: Exhibits I – K**).

**Tribal Benefits.** The proposed Project does not directly serve and/or benefit a Tribe.

#### **Evaluation Criterion 5: Watershed Perspective (15 points)**

**Regional Planning.** The project implements elements from the following plans:

**California Water Plan, updated in 2018:** The element implemented by the proposed project is “Municipal Recycled Water, a Resource Management Strategy of the California Water Plan,” Department of Water Resources, July 29, 2016.

**Northern Sacramento Valley Integrated Regional Water Management Plan (NSVIRWMP), adopted in 2014 and updated in 2020:** The project also implements a component of the NSVIRWMP. The plan includes Recycled Municipal Water among its Resource Management Strategies to be achieved through the plans’ ranked projects. (See Table 4-3). The Yuba-Sutter Regional Recycled Water Master Plan, 2007, is referenced in the document as a plan that addresses long-term water supply reliability.

**Yuba-Sutter Regional Recycled Water Master Plan, 2007:** The Yuba-Sutter Regional Recycled Water Master Plan of 2007 detailed an effort by the Yuba City, City of Marysville, and the Linda County Water District to diversify their water supply portfolios and provide a greater level of water supply reliability for their growing populations. The report provides alternative approaches to wastewater recycling for the three agencies as a whole and for the individual agencies. Yuba City has further development planned at the south end of its SOI. This would allow the installation of recycled water “purple pipes,” which is key to making the installation of a recycled conveyance system financially attainable.

**Sutter Subbasin Groundwater Sustainability Plan (Sutter Subbasin GSP):** The Sustainable Groundwater Management Act of 2014 required development of Groundwater Sustainability Plans for high- or medium-priority groundwater basins statewide. The City is one of the member agencies participating in the Sutter Subbasin GSP. Among the projects identified for the City in the January 2022 Sutter Subbasin GSP is to conduct a feasibility study for constructing a Recycled Water Facility and analyze the possibility of implementing advanced treatment and water recycling at the WWTF for direct and in-lieu recharge.

**Regional Water Supply Needs.** The proposed project will increase the amount of water available for reuse and help meet the growing water demands of Sutter County while improving the quality of effluent and the amount discharged into the Feather River, both of which can have positive environmental impacts. By treating the wastewater to a higher standard, the plant can help protect the Feather River watershed and its ecosystems. In addition, recycled water can be used to supplement irrigation water sources and help to increase the availability of water for agriculture while reducing reliance on groundwater resources.

**Local/Regional Water Partners.** The City coordinates with water suppliers that share a common water source, relevant water management agencies that affect the City’s water assets, and relevant public agencies that may have land use or other regulatory relationships with the City. Coordinating agencies include Sutter County, North Yuba Water District, the Department of Water Resources, GSA, and the general public. These stakeholders support the City’s efforts to improve WWTF infrastructure to support increased recycled water services while promoting regional water resiliency in the face of persistent drought. The City will invite stakeholders to

participate in public forums and facilitate consultations with agencies impacted by planning activities and/or culminating projects.

**Public Outreach and Education.** The City regularly engages its customer base regarding its water services and demand management outreach and education programs. With assistance from the Consultant, the City will seek public participation via a public hearing and appropriate notices regarding any subsequent project resulting from the feasibility study, including:

- Conduct public meetings informing the public regarding the need and benefits of upgrading the WWTF to a tertiary treatment facility to improve the quality of effluent to be used for beneficial purposes by water users.
- Disseminate information via communication protocols regarding the project's purpose and need, including bilingual fact sheets, infographics, direct mailings, and billing inserts. The City will provide information, FAQs, and project updates on the City's website and social media platforms.

**Widespread Project Support.** The City's application includes letters of support from a wide range of stakeholders, including Congressman Doug LaMalfa, Assemblyman James Gallagher, Sutter County Groundwater Sustainability Agency, the Farm Bureau, and Friends of the Feather River. Letters of support for this Project are included at the end of this application.

**Significance of Collaboration/Support.** Collaboration/support for this study represents ongoing connections with municipalities, water partners, and community allies to achieve the common goals of drought resiliency, water conservation, and preserving our precious water supplies.

**REQUIRED PERMITS OR APPROVALS.** No permits or approvals are required to perform the feasibility study.

**OFFICIAL RESOLUTION.** Resolution23-019 is included as **Attachment: Exhibit L**, as per NOFO instructions. The authorized Resolution was approved by City Council on February 21, 2023.

**LETTERS OF SUPPORT.** Letters of Support for the City's Feasibility Study Project are included at the end of this document (**Attachment: Exhibit M**). Letters of Partnership are not applicable to this Project.

**OVERLAP OR DUPLICATION OF EFFORT STATEMENT.** There is no overlap or duplication for the Project.

**UNIFORM AUDIT REPORTING STATEMENT.** The City of Yuba City submitted a Single Audit Report for the most recent fiscal year, 2021. The report was filed under 94-6000460, and it is available through the Federal Audit Clearinghouse website.

**CONFLICT OF INTEREST DISCLOSURE STATEMENT.** No actual or potential conflicts of interest exist at the time of the submission of this application.

## **PROJECT BUDGET**

### **Funding Plan and Letters of Commitment**

The City of Yuba City commits to making \$249,999 available as a non-federal funding match for the proposed Project. There are no time constraints on the availability of funds, nor any other contingencies associated with the funding commitment.

- Project funding will not include: third-party in-kind costs or cash requested or received from other non-Federal entities.
- There are no pending funding requests (grants or loans) for this Project.
- Project funding will not include third-party sources, and as such, there are no required Letters of Commitment.
- The City will assume any necessary City staffing costs for grant management. These staffing costs are not included in the proposed Project budget.
- The City is not seeking reimbursement for any expenditures incurred prior to the award.

Table 1. Summary of Non Federal and Federal Funding Sources	
FUNDING SOURCES	AMOUNT
<b>Non-Federal Entities</b>	
City of Yuba City - Salaries, Wages, Fringe	\$ 72,044
Local Cash Contribution – Wasterwater Enterprise Funds	\$ 177,955
<b>Non-Federal Subtotal</b>	<b>\$ 249,999</b>
<b>REQUESTED RECLAMATION FUNDING</b>	<b>\$ 249,999</b>

Table 2. Total Project Cost	
SOURCE	AMOUNT
Costs to be reimbursed with the requested Federal funding	\$ 249,999
Costs to be paid by the applicant	\$ 249,999
Value of third-party contributions	\$ -
<b>TOTAL PROJECT COST</b>	<b>\$ 499,998</b>

WWTF ADVANCED TREATMENT AND RECYCLED WATER FEASIBILITY STUDY  
City of Yuba City Public Works Department

**Budget Proposal**

City of Yuba City Table 3. Feasibility Study Project Budget					
Salaries and Wages	Hourly Rate	Hours	Total	BOR Request	Applicant 50% Match
Wastewater Treatment Facility Supervisor .05% FTE	\$60	104	\$ 6,240	\$ 3,120	\$ 3,120
Environmental Compliance Manager 20% FTE	\$57	624	\$ 35,568	\$ 17,784	\$ 17,784
Administrative Clerk III 15% FTE	\$25	312	\$ 7,800	\$ 3,900	\$ 3,900
Fringe Benefits	Fringe Rate		Total	BOR Request	Applicant Match
Wastewater Treatment Facility Supervisor (Step 5(9))	56%		\$ 3,494	\$ 1,747	\$ 1,747
Environmental Compliance Manager (Step 5(9))	39%		\$ 13,872	\$ 6,936	\$ 6,936
Administrative Clerk III (Step 5(9))	65%		\$ 5,070	\$ 2,535	\$ 2,535
Travel			Total	BOR Request	Applicant Match
Not applicable			\$ -	\$ -	\$ -
Equipment			Total	BOR Request	Applicant Match
Not applicable			\$ -	\$ -	\$ -
Supplies/Materials			Total	BOR Request	Applicant Match
Not applicable			\$ -	\$ -	\$ -
Contractual			Total	BOR Request	Applicant Match
Data Collection/Research Activities	150	180	\$ 27,000	\$ 13,500	\$ 13,500
Water Reclamation and Reuse Opportunities	150	200	\$ 30,000	\$ 15,000	\$ 15,000
Reclaimed Water Sources and Recycled Water Background	150	200	\$ 30,000	\$ 15,000	\$ 15,000
Recycled Water Supply Alternative Development and Analysis	150	250	\$ 37,500	\$ 18,750	\$ 18,750
Cost and Benefits	150	200	\$ 30,000	\$ 15,000	\$ 15,000
Energy Evaluation	150	200	\$ 30,000	\$ 15,000	\$ 15,000
Environmental Considerations, Impacts, Compliance	150	250	\$ 37,500	\$ 18,750	\$ 18,750
Economic and Financial Impacts	150	250	\$ 37,500	\$ 18,750	\$ 18,750
Recommend Course of Action	150	250	\$ 37,500	\$ 18,750	\$ 18,750
Public Outreach	150	150	\$ 22,500	\$ 11,250	\$ 11,250
Implementation and Funding Plan	150	175	\$ 26,250	\$ 13,125	\$ 13,125
Prepare Draft Report	150	300	\$ 45,000	\$ 22,500	\$ 22,500
Prepare Final Report	150	200	\$ 30,000	\$ 15,000	\$ 15,000
Total Direct Costs			Total	BOR Request	Applicant Match
		2,805	\$ 492,794	\$ 246,397	\$ 246,397
Indirect Costs			Total	BOR Request	Applicant Match
10% de minimus on Salaries and Fringe			\$ 7,204	\$ 3,602	\$ 3,602
Total Project Costs			\$ 499,998	\$ 249,999	\$ 249,999



## Budget Narrative

### Salaries, Wages, and Fringe Benefits:

Total salaries for the City's staff of \$72,044 (representing a combined 40% FTE) are proposed, including the following:

*1. Wastewater Treatment Facility Supervisor, Mike Finnigan*

Mr. Finnigan has worked in the wastewater/water operations field for more than 26 years, ranging from small wastewater pond systems to advanced BNR tertiary treatment facilities. He has also held position as Chief Plant Operator and Utilities Director. As Supervisor, Mr. Finnigan will provide project oversight to ensure goals and outcomes are met within budget and on schedule.

**\$60/hour x 104 hours (FTE .05%) over two years.**

*2. Environmental Compliance Manager, Katherine Willis, Environmental Compliance Manager.*

Ms. Willis has thirty years of experience in the water and wastewater industries, including positions as a water quality specialist, water plant operator, wastewater plant operator, and water district general manager. As Project Manager, Ms. Willis will oversee the proposed project, including coordination with the selected Consultant and other City staff contributing to the project. She will provide input and oversight to the Consultant as necessary and carry out all grant management activities with help from the Administrative Assistant, and will be the main point of contact for the BOR.

**\$57/ hour x 624 hours (FTE 20%) over two years.**

*2. Administrative Clerk III, Jennifer Troche.* Ms. Troche will provide support as needed, including assisting with grant management, public outreach, and other duties as required.

**\$25/hour x 312 hours (FTE 15%) over two years.**

### Fringe:

The City's fringe rate ranges from 39% to 65% and includes the following benefits:

- Medicare
- Health Insurance
- PERS
- PERS UAL
- Workers' Compensation
- Life Insurance
- Vision/Dental

### Travel:

There are no travel expenses anticipated for the Project.

Equipment:

There are no equipment costs for the Project.

Supplies and Materials:

There are no materials and supplies costs for the Project.

Contractual:

Contractual costs make up the majority of the budget for the Project, for a total of \$420,750. A Consultant will be determined by an RFP and bidding process. The Consultant will be responsible for carrying out all feasibility study activities. The rate is based on local area engineering firm estimates.

**\$150/hour x 2,805 hours over two years.**

All these items combined lead to a total of \$499,998 for the Project budget. The City has committed to providing a match of \$249,999 (50%), and the City's Project funding request is for 50%, or \$249,999.



**WaterSMART:  
Water Recycling and Desalination Planning  
NOFO: R23AS00076**

---

**City of Yuba City**

---

**WWTF ADVANCED TREATMENT AND RECYCLED WATER  
FEASIBILITY STUDY**

**SF424 FORM ATTACHMENT**

**14. Areas Affected by Project:**

Yuba City, Sutter County, California



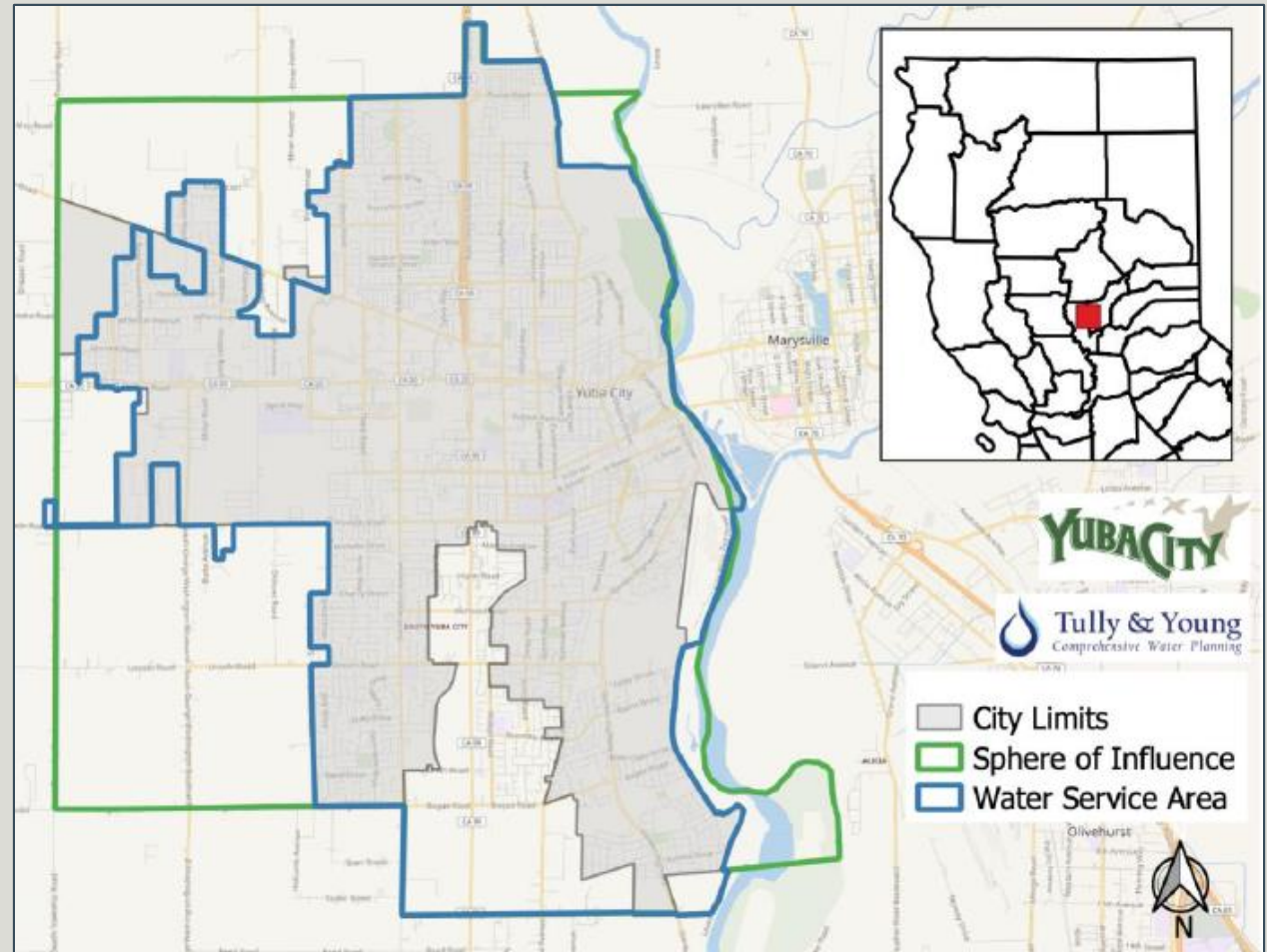
**CITY OF YUBA CITY  
Yuba City WWTF Advanced  
Treatment and Recycled Water  
Feasibility Study**

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**ATTACHMENTS**

# **EXHIBIT A**

## **Project Location and Service Area Map**

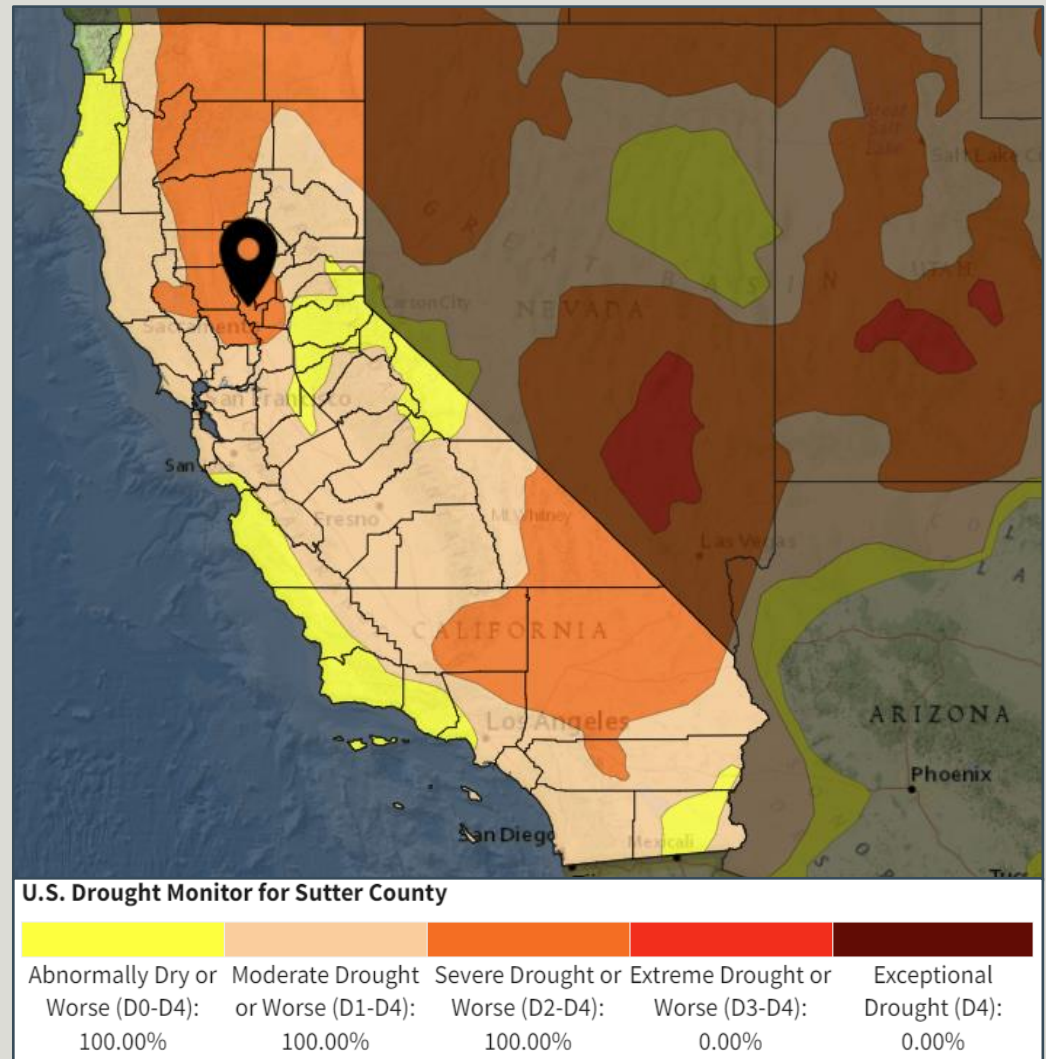


## **EXHIBIT B**

### **Current Drought Conditions for Sutter County**

According to the U.S. Drought Monitor, Sutter County continues to experience severe drought. In addition, stream flows are below normal. More than 94,000 people in Sutter County (100%) are affected by drought.

As severe drought persists, the County can expect to see more extreme weather events, including wildfires, and heightened stressors on communities, wildlife, and the environment.



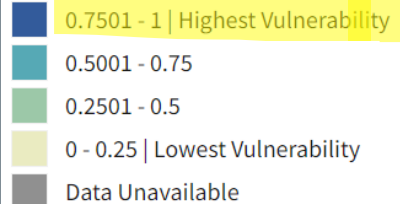
# EXHIBIT C

## Social Vulnerability Index for Sutter County

### Social Vulnerability Index Heat Warnings

This map shows the Center for Disease Control and Prevention's (CDC's) Social Vulnerability Index alongside current U.S. Drought Monitor drought designations. CDC's Social Vulnerability Index uses 15 U.S. census variables at tract level (including poverty, lack of vehicle access, and crowded housing) to help local officials identify communities that may need support in preparing for or recovering from hazards, like drought. [Learn more.](#)

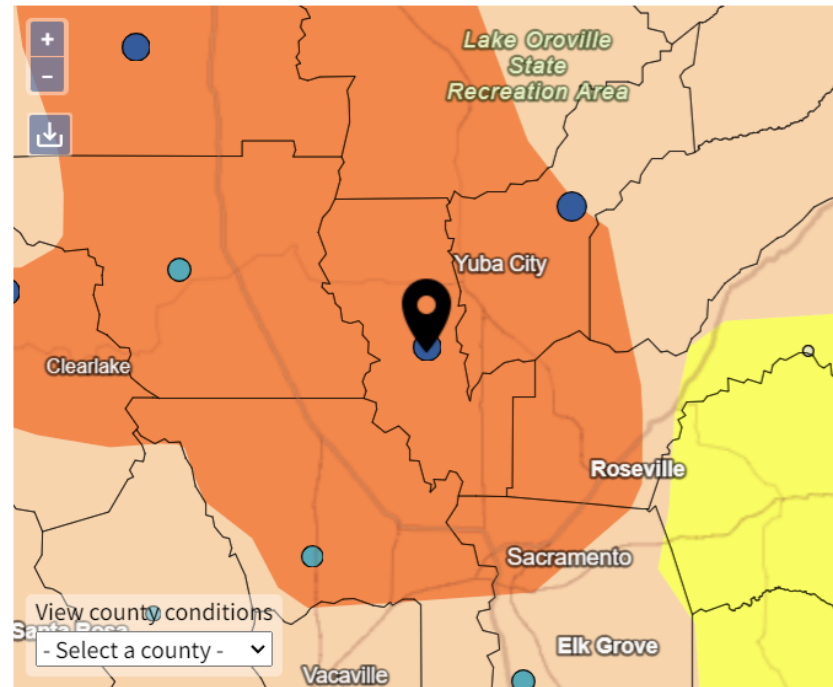
#### Social Vulnerability Index (SVI)



#### U.S. Drought Monitor



Source(s): CDC



USDM Updates Weekly - 02/14/23

**0.88**

Social Vulnerability Index Score

**No**

Heat Warning issued by the  
National Weather Service

**No**

Air Quality Warning issued by  
the National Weather Service

**No**

in Sutter

This U.S. Drought map indicates that residents of Sutter County are highly vulnerable to drought, especially those who may be disadvantaged or living in poverty.



# **EXHIBIT D**

## **Project Tasks**

Task #	Task	Description
1	Initiate RFP Process/Contract Negotiations with Consultant	The City will develop bid documents for RFP to contract qualified and experienced Consultant to conduct the Feasibility Study resulting in a comprehensive plan to consolidate and upgrade wastewater treatment facilities to increase the City's recycled water services and storage availability. The City will finalize contract and prepare a contract statement of work.
2	Grant Management	Execute grant agreement with BOR, attend BOR meetings, oversee contract and project progress, complete reporting requirements, close out grant, maintain records for three years after project closeout.
3	Contract Approval	Execute contract with Consultant and initiate feasibility study activities and obligate the City to leverage funds and in-kind staff time to support the project.
4	Kick-off Meeting	The City will hold a kick-off meeting with Consultant to review schedule and scope of work. BOR will be invited to participate in this meeting.
5	Project Management	Project Manager will manage project, supervise Consultant, and ensure project deliverables are within budget and time constraints.
<b>Technical Project Tasks</b>		
6	Preliminary Project Planning/Data Collection	Gather, review, and summarize previous reports relevant to recycled water and water supply; summarize the City's current and projected water and wastewater needs and demands; describe need for additional water supply to be provided through recycled water projects; describe study area characteristics, project setting, City's water, wastewater, and recycled water supplies; describe the City's recycled water system and sources of additional water supplies.
7	Water Reclamation and Reuse Opportunities	Identify opportunities for water reclamation and reuse in the study area.
8	Reclaimed Water Sources and Recycled Water Background	Identify sources of reclaimed water and current/future recycled water technologies.
9	Recycled Water Supply Alternative Development and Analysis	Evaluate water supply alternatives, including potable and non-potable options, to meet future water demands.
10	Cost and Benefits	Develop cost and benefit information for each of the recycled water project alternatives.
11	Energy Evaluation	Provide considerations for efficient use of energy in the development and evaluation of each recycled water project alternative.
12	Environmental Considerations and Potential Effects	Identify environmental considerations and potential impacts for each recycled water project alternative.
13	Environmental Compliance	Each recycled water project will be evaluated for CEQA and NEPA compliance and determine any categorical exemptions.
14	Regulatory, Permitting, and Legal Requirements	Identify regulatory, permitting, and legal requirements or barriers to implementing each proposed recycled water alternative.
15	Economic Analysis and Selection of Recycled Water Alternatives	Perform an economic analysis for each proposed recycled water project and select the City's preferred recycled water alternatives.
16	Public Outreach Plan	Document available resources and tools related to public outreach; provide recommendations for public outreach and education strategies to communicate with the public about project implementation.
17	Implementation and Funding Plan	Develop an implementation and funding plan for each selected alternative for the City's project focus areas.
18	Prepare Draft Report	Consultant will prepare a Draft Feasibility Study Report identifying infrastructure and recommended course of action, including alternative/no action analyses.
19	Prepare Final Report	Consultant will prepare and provide the City with the Final Feasibility Study Report, summarizing information gathered, documenting tasks completed, and work performed for the project, and include the scope of work for implementation of recommended projects.





# EXHIBIT F

## Recommended Wastewater Collection System Capital Improvement Projects

**Table 8-6. Recommended Wastewater Collection System Capital Improvement Program for Future Growth**

CIP ID	Improvement Description	Location	Potential Triggers	Construction Cost, dollars <sup>(a)</sup>	Capital Cost, dollars <sup>(a)</sup>	Near-Term Cost Allocation, percent
<b>Near-Term Capital Improvement Trunk Main Projects</b>						
GS-NT-01	Construct 7,800 feet of new 18-inch force main <sup>(a)</sup>	Bogue Road between Highway 99 and Intersection of Garden Highway and Burns Drive	Bogue Stewart, Sutter Heritage, Lincoln East, El Margarita	4,660,000	6,280,000	60
GS-NT-02	Construct 7,080 feet of new 10-inch pipe; Construct 16,870 feet of new 12-inch pipe; Construct 1,190 feet of new 18-inch pipe	South of Bogue Road	Bogue Stewart, Sutter Heritage, Lincoln East, El Margarita	13,100,000	17,690,000	100
GS-NT-03	Construct 2,660 feet of new 27-inch pipe; Construct 3,320 feet of new 30-inch pipe; Construct 5,270 feet of new 33-inch pipe; Construct 3,950 feet of new 48-inch pipe	Sanborn Road between Bogue Road and Franklin Avenue	Lincoln East, El Margarita	21,160,000	28,560,000	50
GS-NT-04	Construct 10,560 feet of new 15-inch pipe; Construct 2,710 feet of new 24-inch pipe; Construct 170 feet of new 27-inch pipe	Sanborn Road between Franklin Avenue and Lassen Boulevard	El Margarita	9,310,000	12,570,000	50
<b>Subtotal</b>				<b>48,230,000</b>	<b>65,100,000</b>	<b>—</b>
<b>Near-Term Capital Improvement Lift Station Projects</b>						
LS-NT-01	Construct a new 17.7 mgd Lift Station <sup>(b)</sup>	Highway 99 and Bogue Road	Bogue Stewart, Sutter Heritage, Lincoln East, El Margarita	10,250,000	13,840,000	30
LS-NT-02	Construct a new 5.4 mgd Lift Station	Sanborn Road and Lincoln Road	Lincoln East, El Margarita	4,610,000	6,230,000	50
<b>Subtotal</b>				<b>14,860,000</b>	<b>20,070,000</b>	<b>—</b>
<b>Total Near-Term Capital Improvement Projects</b>				<b>63,090,000</b>	<b>85,170,000</b>	<b>—</b>
<b>Buildout Capital Improvement Trunk Main Projects</b>						
GS-NT-01	Construct 7,800 feet of new 18-inch force main <sup>(a)</sup>	Bogue Road between Highway 99 and Intersection of Garden Highway and Burns Drive	Bogue Stewart, Sutter Heritage, Lincoln East, El Margarita	4,650,000	6,280,000	0
GS-BO-01	Construct 11,770 feet of new 15-inch pipe	Between Bogue Road and Franklin Avenue	Future development west of Sanborn Road	7,260,000	9,810,000	0
GS-BO-02	Construct 16,910 feet of new 15-inch pipe; Construct 12,510 feet of new 33-inch pipe	George Washington Avenue between Bogue Road and Franklin Avenue	Future development west of George Washington Avenue and south of Franklin Boulevard	26,800,000	36,180,000	0
GS-BO-03	Construct 3,860 feet of new 15-inch pipe; Construct 2,710 feet of new 30-inch pipe; Construct 5,290 feet of new 33-inch pipe	George Washington Boulevard between Franklin Avenue and Highway 20	Future development west of George Washington Avenue in the vicinity of Franklin Boulevard	12,530,000	16,920,000	0
GS-BO-04	Construct 6,170 feet of new 15-inch pipe; Construct 13,320 feet of new 18-inch pipe; Construct 2,760 feet of new 27-inch pipe; Construct 2,450 feet of new 30-inch pipe	North of Highway 20	Future development in northwesternmost Yuba City	19,830,000	26,780,000	0
GS-BO-05	Construct 8,840 feet of new 18-inch pipe	Harter Parkway and Elmer Avenue	Future development in the vicinity of Butte House Road and Terra Buena Road	6,470,000	8,740,000	0
<b>Subtotal</b>				<b>77,540,000</b>	<b>104,710,000</b>	<b>—</b>
<b>Buildout Capital Improvement Lift Station Projects</b>						
LS-BO-01	Construct a new 5.5 mgd Lift Station	George Washington Boulevard and Highway 20	Future development associated with GS-BO-04	4,670,000	6,300,000	0
LS-BO-02	Construct a new 8.4 mgd Lift Station	George Washington Boulevard and Lincoln Road	Future development associated with GS-BO-02, GS-BO-03, and GS-BO-04	6,180,000	8,340,000	0
<b>Subtotal</b>				<b>10,850,000</b>	<b>14,640,000</b>	<b>—</b>
<b>Total Buildout Capital Improvement Projects</b>				<b>88,390,000</b>	<b>119,350,000</b>	<b>—</b>
<b>Total Future Growth Capital Improvement Projects</b>				<b>151,480,000</b>	<b>204,520,000</b>	<b>--</b>

<sup>(a)</sup> This improvement includes three force main projects described in Chapter 6. Two of the force mains are included in Near-Term, with the third forcemain included in Buildout.

<sup>(b)</sup> Initial cost may be reduced by installing smaller pumps and electrical equipment. A future cost to upsize would be added.

<sup>(c)</sup> Costs include mark-ups equal to 25 percent (Estimating Contingency).

<sup>(d)</sup> Capital Costs include an Estimating Contingency of 25 percent, a Construction Contingency of 5 percent, and an Implementation Multiplier of 30 percent, as described in this chapter.

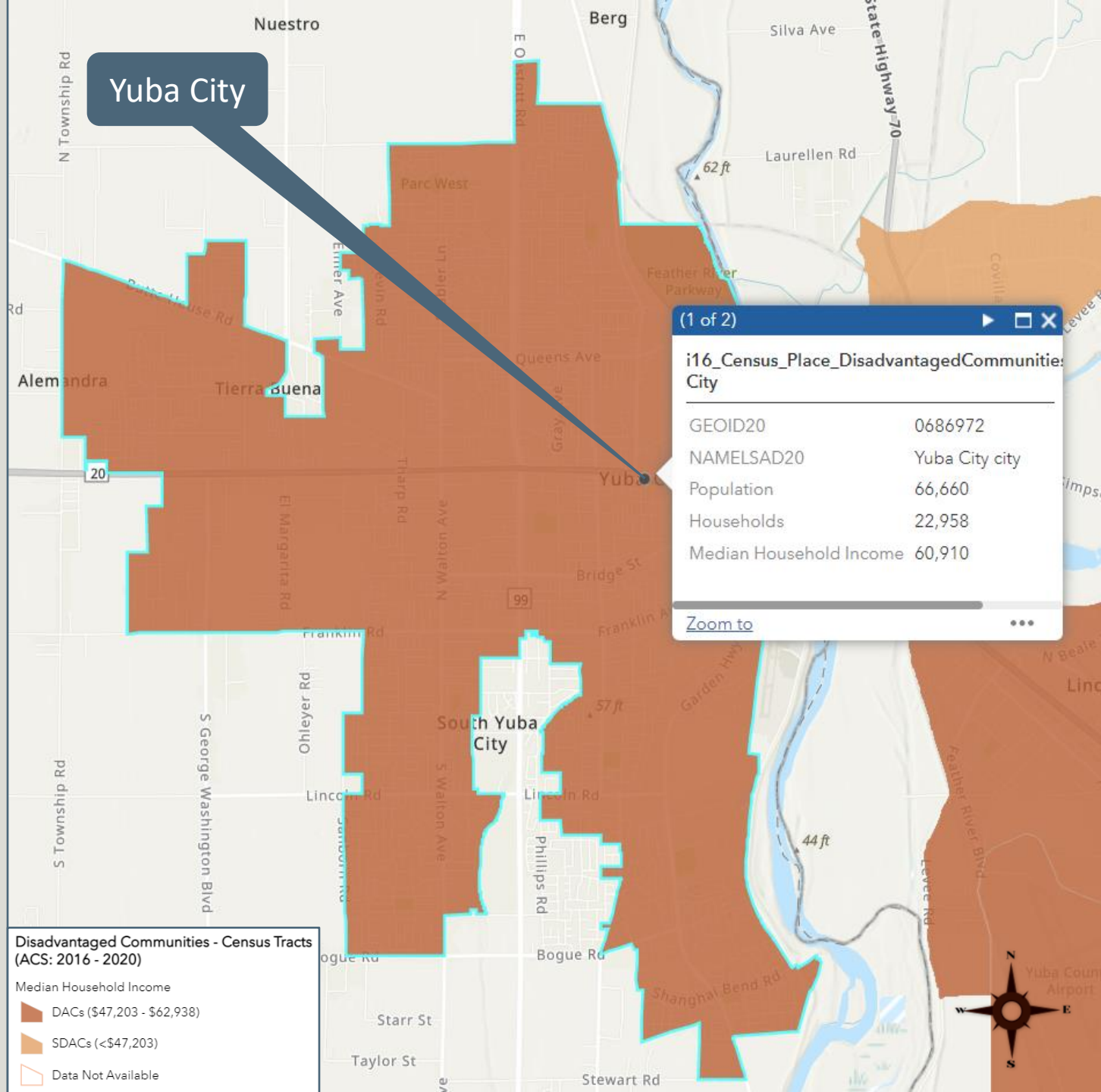
# EXHIBIT G

## Department of Water Resources (DWR)

### Disadvantaged Communities Mapping Tool

## Median Household Income

The DWR DAC Mapping Tool indicates that Yuba City's median household income (MHI) is \$60,910, representing 22,958 disadvantaged households (Source: U.S. Census American Community Survey (ACS) 2016-2020), compared to the state's \$78,672 MHI.



# **EXHIBIT H**

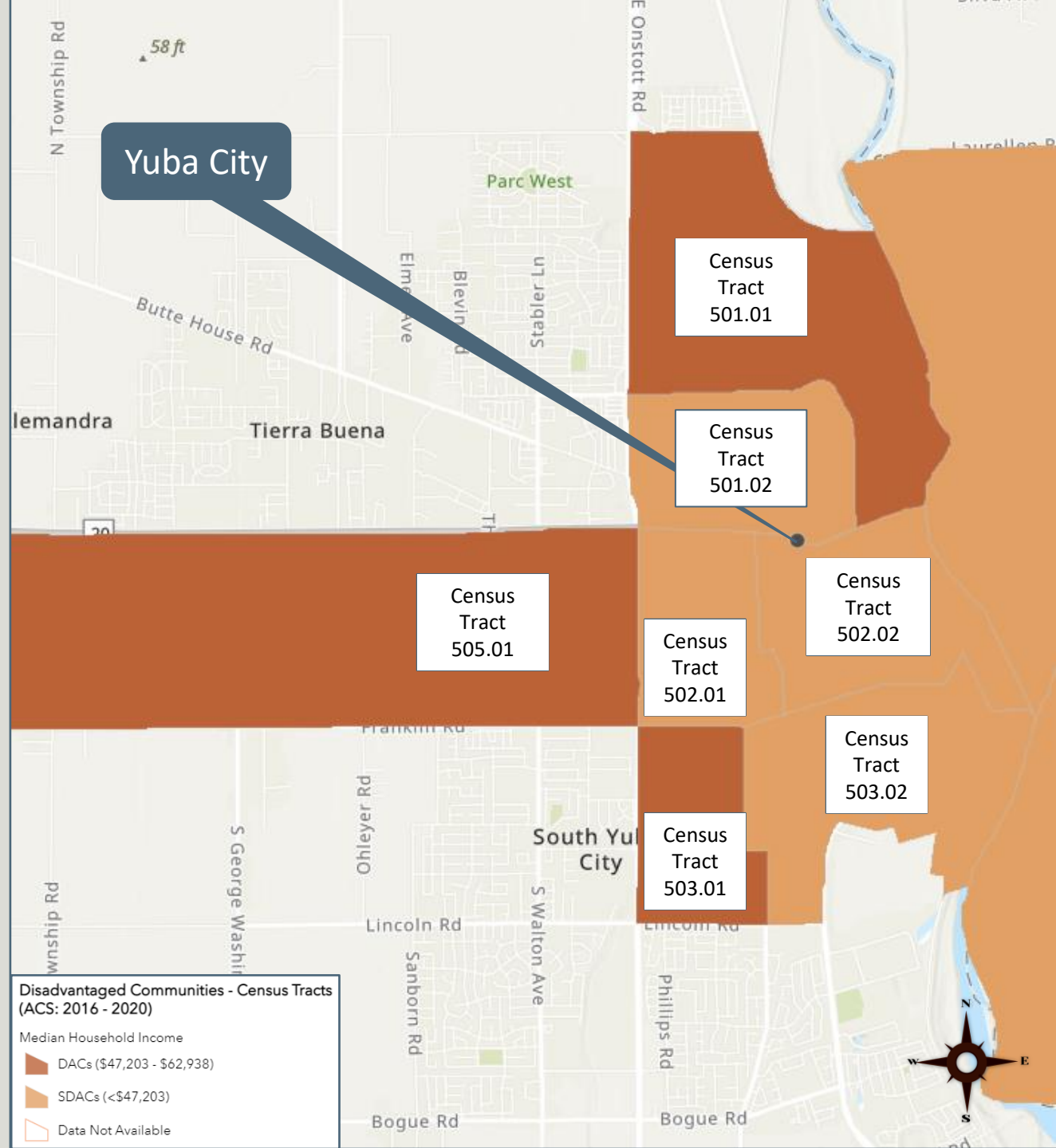
## **Department of Water Resources (DWR)**

### **Disadvantaged Communities Mapping Tool**

### **DAC/SDAC Communities**

The DWR DAC Mapping Tool indicates that Census Tracts 501.01, 503.01, and 505.01 are identified as Disadvantaged Communities, representing 16,136 people.

Census Tracts 501.02, 502.01, 502.02, and 503.02 are identified as Severely Disadvantaged Communities. These census tracts represent 17,482 people.



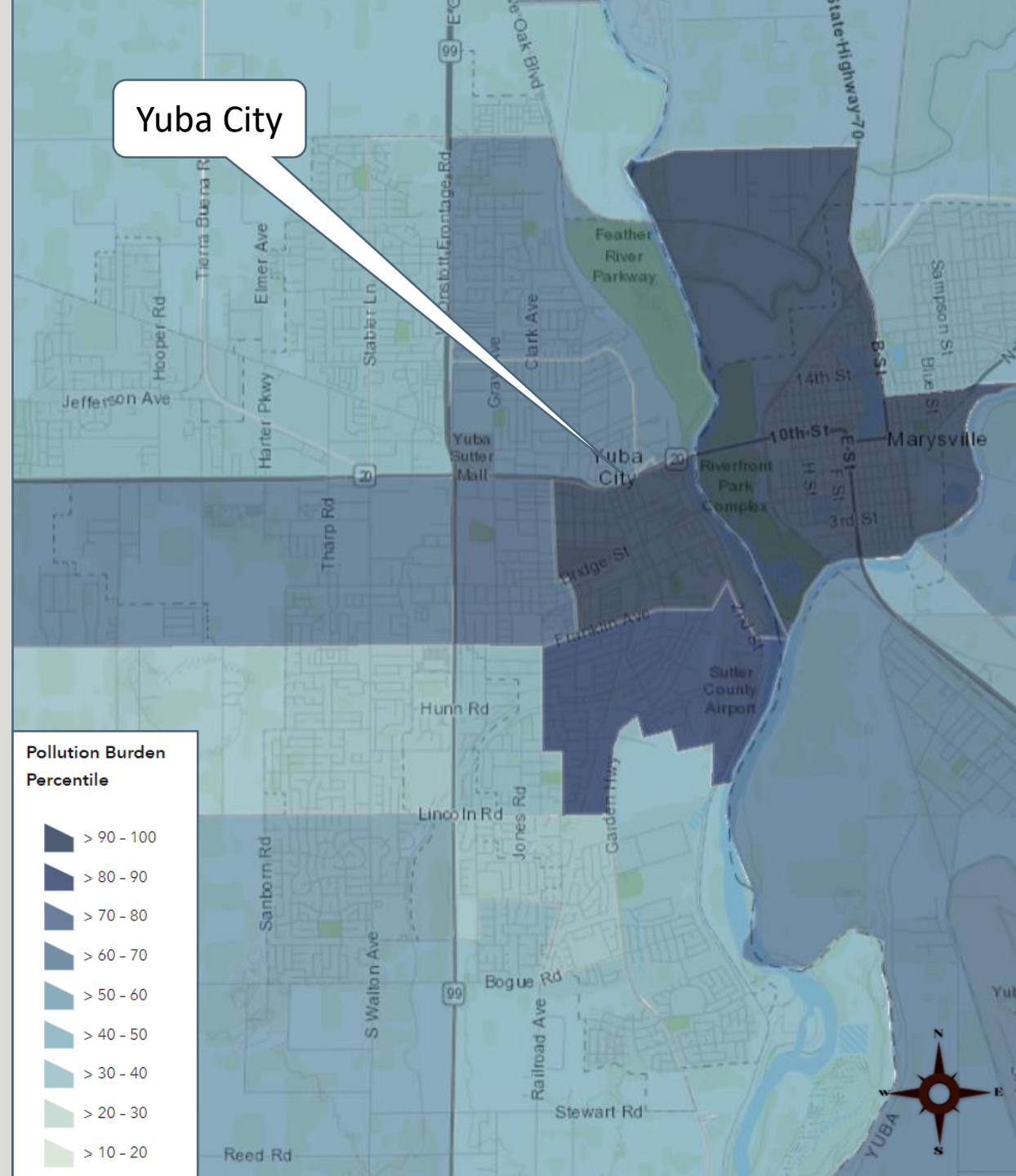


# **EXHIBIT I**

## **CalEnviroScreen 4.0**

### **Pollution Burden**

CalEnviroScreen 4.0 identifies California communities by Census Tract that are disproportionately burdened by and vulnerable to multiple sources of pollution and health issues. It is clear from the map that the Census Tracts south of Colusa Highway (Highway 20) and those on the east side of the City adjacent to the Feather River have a high burden of pollution. These burdened communities rank in the 75th and above percentiles.

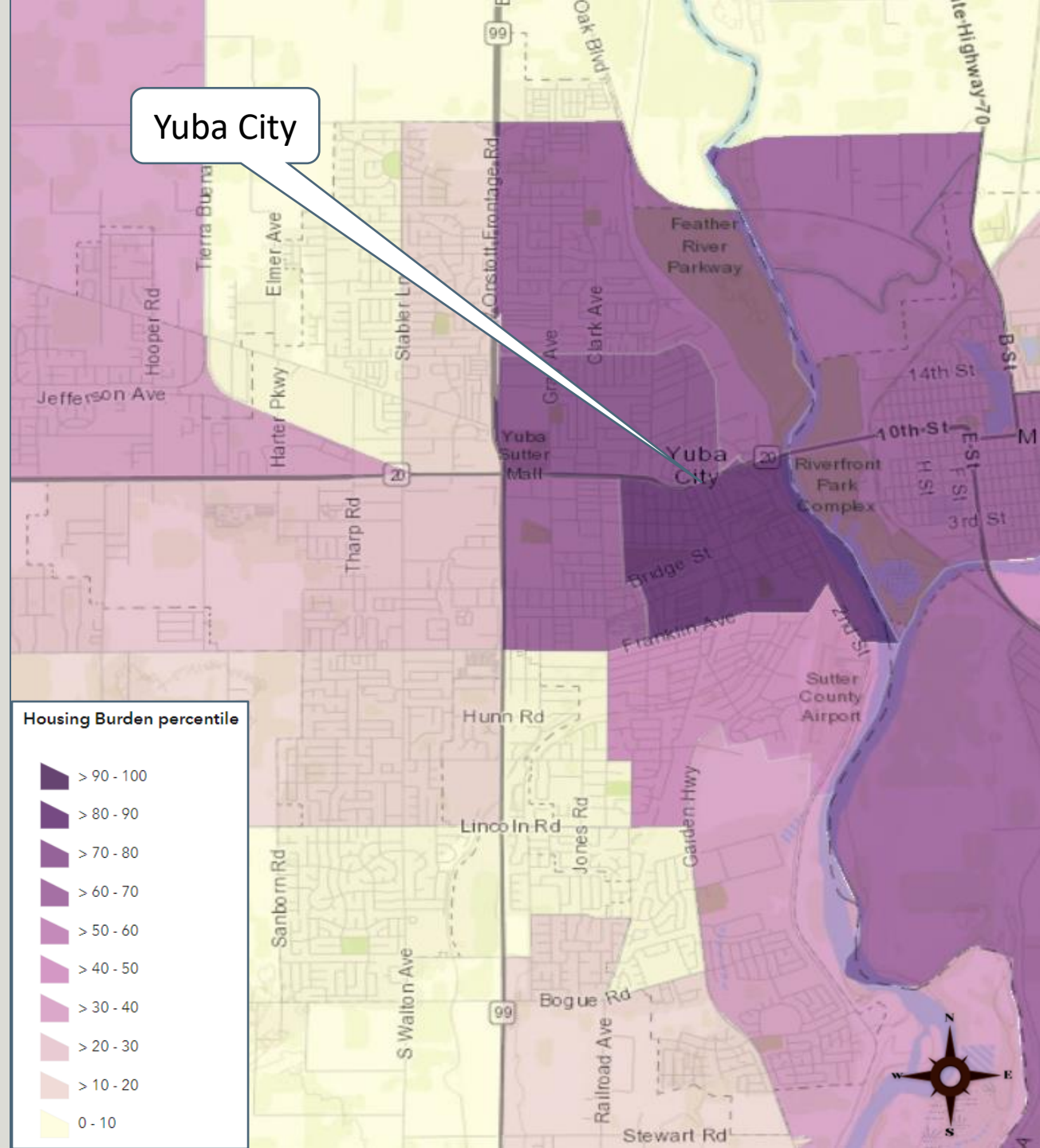


# **EXHIBIT J**

## **CalEnviroScreen 4.0**

### **Housing Burden**

CalEnviroScreen 4.0 identifies California communities by Census Tract that are disproportionately burdened by and vulnerable to high housing costs. These burdened communities rank in the 75<sup>th</sup> and above percentiles.

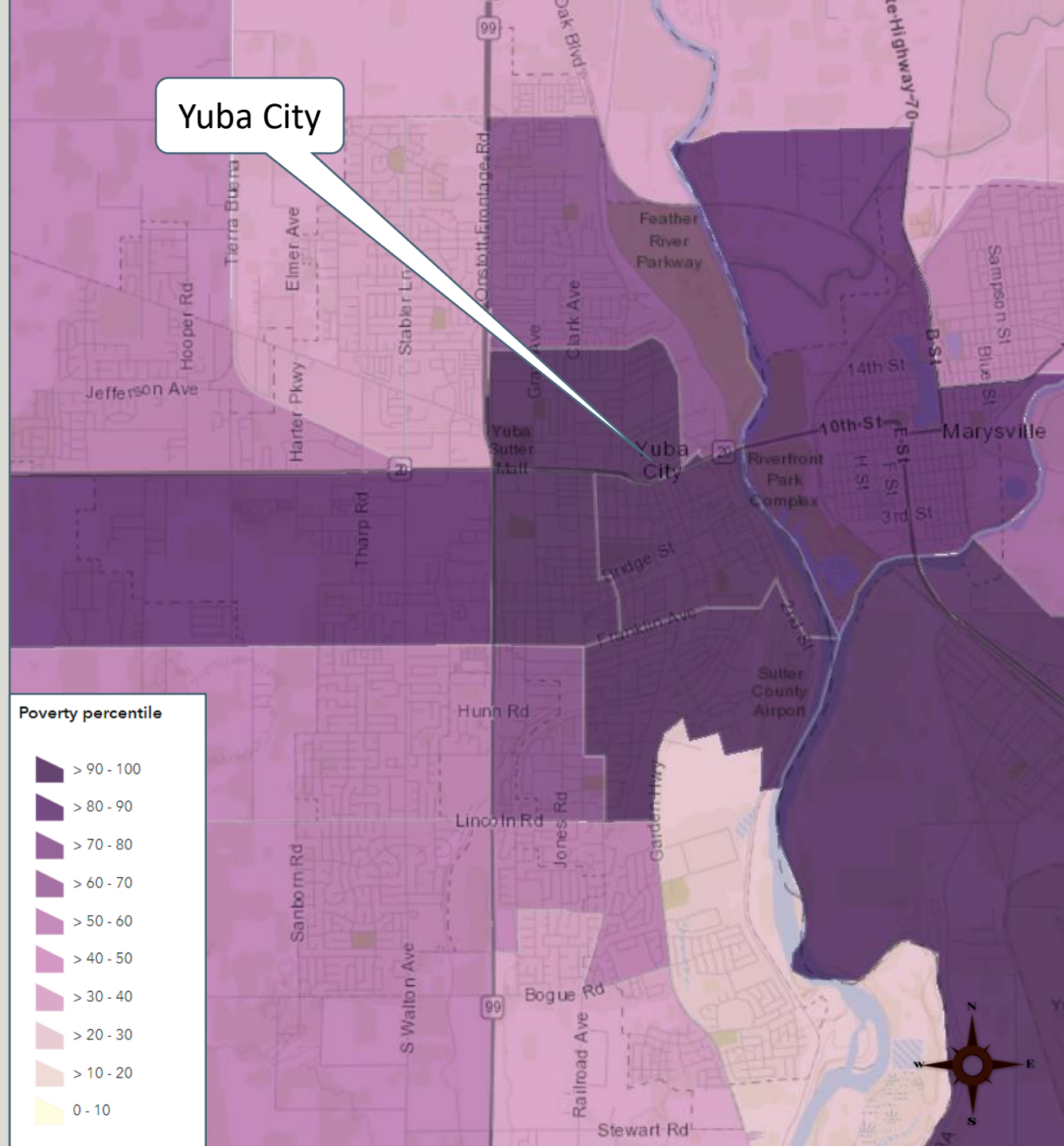


# **EXHIBIT K**

## **CalEnviroScreen 4.0**

### **Poverty Burden**

CalEnviroScreen 4.0 identifies California communities by Census Tract that are disproportionately burdened by and vulnerable to low education rates and high poverty and unemployment rates. It is clear from the map that the Census Tracts south of Colusa Highway (Highway 20) and those on the east side of the City adjacent to the Feather River have a high burden of poverty. Most of the City's census tracts rank in the 85th and above percentiles.



**EXHIBIT L**

**Yuba City  
City Council  
Resolution 23-019**



**RESOLUTION NO. 23-019**

**A RESOLUTION OF THE CITY COUNCIL OF YUBA CITY AUTHORIZING THE SUBMISSION OF A GRANT APPLICATION TO THE UNITED STATES DEPARTMENT OF THE INTERIOR, BUREAU OF RECLAMATION, FOR THE 2023 WATERSMART WATER RECYCLING AND DESALINATION PLANNING GRANT PROGRAM AND AUTHORIZING THE CITY OF YUBA CITY, PUBLIC WORKS DIRECTOR TO EXECUTE A GRANT AGREEMENT**

WHEREAS, California's recent, ongoing, and anticipated drought conditions have put "Making Water Conservation a California Way of Life" at the forefront of public water and wastewater utility operations and infrastructure planning for water resiliency and sustainability; and

WHEREAS, the City of Yuba City Public Works Department has identified conversion of its Wastewater Treatment Facility to tertiary treatment as a way to improve effluent quality in order to provide treated recycled water for regional agriculture, landscaping, wildlife habitat, industrial operations, and other non-potable water uses; and

WHEREAS, a Water Recycling Feasibility Study is necessary for responsible and effective planning of the construction of tertiary treatment processing and conveyance infrastructure and for eligibility or competitiveness in state and federal funding opportunities; and

WHEREAS, the United States Department of the Interior, Bureau of Reclamation released a Funding Opportunity Announcement (NFO: R23AS00076) WaterSMART Grants: Water Recycling and Desalination Planning for 2023, which could provide funding for said study; and

WHEREAS, the City of Yuba City is a California General Law City and, through its Wastewater Treatment Facility, has the authority to construct, operate, and maintain its wastewater treatment and collection system and is responsible for providing reliable, affordable, and sustainable water and wastewater services; and

WHEREAS, the grant application recommends the adoption of an authorizing resolution designating a representative to sign and file a financial assistance application and all necessary documents related to a grant agreement with the United States Department of the Interior, Bureau of Reclamation; and

WHEREAS, the City of Yuba City, if selected, will enter into a grant agreement with the United States Department of the Interior, Bureau of Reclamation to carry out a project to plan for the City of Yuba City's advanced treatment and water reuse planning, environmental compliance, and other pre-design activities.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Yuba City as follows:

1. The Public Works Director is hereby authorized and directed to sign, submit, and file, for and on behalf of the City of Yuba City, an application for a grant agreement with the United States Department of the Interior, Bureau of Reclamation to conduct a comprehensive advanced treatment and recycled water feasibility study.

2. The Public Works Director is designated to provide the assurances, certifications, and commitment required for the financial assistance application, including executing all documents in furtherance thereof, including but not limited to a grant or cooperative agreement with the United States Department of the Interior, Bureau of Reclamation and any amendments or changes thereto.
3. The City of Yuba City is capable of providing the matching funding and/or in-kind contributions specified in the grant application funding plan.
4. The City Council of Yuba City has reviewed and supports the application to be submitted to the United States Department of the Interior, Bureau of Reclamation.
5. The City of Yuba City will use reasonable efforts to work with the United States Department of the Interior, Bureau of Reclamation to meet established deadlines for entering into a grant or cooperative agreement.
6. The Public Works Director is designated to represent the City of Yuba City in carrying out the City of Yuba City's responsibilities under the grant agreement, including certifying disbursement requests on behalf of the City of Yuba City and compliance with applicable state and federal laws.

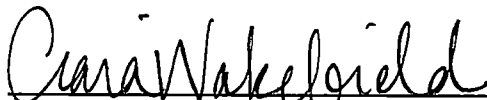
The foregoing Resolution was duly and regularly introduced, passed, and adopted by the City Council of the City of Yuba City at a regular meeting thereof held on the 21st day of February, 2023.

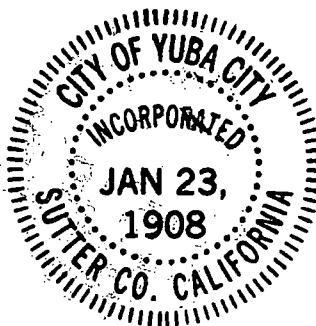
AYES: Councilmembers Boomgaarden, Pasquale, and Mayor Kirchner

NOES: None

ABSENT: Councilmembers Harris and Shaw

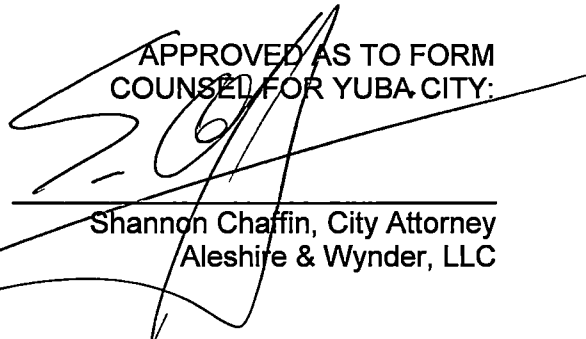
ATTEST:

  
Ciara Wakefield, Deputy City Clerk



  
Wade Kirchner, Mayor

APPROVED AS TO FORM  
COUNSEL FOR YUBA CITY:

  
Shannon Chaffin, City Attorney  
Aleshire & Wynder, LLC

# **EXHIBIT M**

## **Yuba City Letters of Support**

**Congress of the United States**  
**House of Representatives**  
**Washington, DC 20515-0501**

WASHINGTON OFFICE:  
322 CANNON HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515  
TEL: (202) 225-3076  
FAX: (202) 226-0852

CHICO DISTRICT OFFICE:  
120 INDEPENDENCE CIRCLE  
SUITE B  
CHICO, CA 95973  
TEL: (530) 343-1000  
FAX: (530) 343-0240

REDDING DISTRICT OFFICE:  
2885 CHURN CREEK ROAD  
SUITE C  
REDDING, CA 96002  
TEL: (530) 223-5898  
FAX: (530) 223-5897

AUBURN DISTRICT OFFICE:  
2399 RICKENBACKER WAY  
AUBURN, CA, 95602  
TEL: (530) 878-5035  
FAX: (530) 878-5037

<http://lamalfa.house.gov>

February 16<sup>th</sup>, 2023

The Honorable Deb Haaland  
Secretary  
U.S. Department of the Interior, Bureau of Reclamation  
Denver Federal Center  
Bldg. 67, Room 152  
Denver, CO 80225

**RE: City of Yuba City - WWTF Advanced Treatment and Recycled Water Feasibility Study**

Dear Secretary Haaland:

I write you today on behalf of California's 1<sup>st</sup> Congressional District, in support of the City of Yuba City's Wastewater Treatment Facility (WWTF) Advanced Treatment and Recycled Water Feasibility Study. The City of Yuba City is applying for a grant from the WaterSMART Water Recycling and Desalination Planning Grant Program through the Bureau of Reclamation.

California is a dry state, we have seen this for numerous years. Building more reliable local water resources is critical as the State pushes more communities to rely on local sources. Water is the State's most precious natural resource, and I believe it is critical that we protect this resource and increase our groundwater supplies.

Yuba City's Feasibility Study will help to develop a master plan detailing critical infrastructure projects that hopefully will lead to a tertiary treatment plant and conveyance system capable of distributing recycled water. In addition, this Study will ensure compliance with State and Federal requirements for future funding requests. This helps Yuba City's planning process for future funding opportunities to carry out the necessary system improvements.

I ask you to give Yuba City's proposal full and fair consideration. Please contact my staff David Morgan with any additional questions. He can be reach via phone or email: (530) 524-0443 or [David.Morgan@Mail.House.Gov](mailto:David.Morgan@Mail.House.Gov).

Thank you for your consideration.

Sincerely,



Doug LaMalfa  
Member of Congress

dl:dm

STATE CAPITOL  
P.O. BOX 942849  
SACRAMENTO, CA 94249-0003  
(916) 319-2003  
FAX (916) 319-2103

**E-MAIL**

Assemblymember.Gallagher@assembly.ca.gov

Assembly  
California Legislature



**JAMES GALLAGHER**  
ASSEMBLY REPUBLICAN LEADER  
ASSEMBLYMEMBER, THIRD DISTRICT

**DISTRICT OFFICE**  
2060 TALBERT DRIVE, SUITE 110  
CHICO, CA 95928  
(530) 895-4217  
FAX (530) 895-4219

February 15, 2023

Secretary Deb Haaland  
U.S. Department of the Interior, Bureau of Reclamation  
Denver Federal Center  
Bldg. 67, Room 152  
Denver, CO 80225

**RE: Support for Yuba City's Grant Application to the Bureau of Reclamation**

Dear Madam Secretary:

As the representative for California's Third Assembly District, which includes Sutter County, I would like to express my full support for Yuba City's Wastewater Treatment Facility (WWTF) Advanced Treatment and Recycled Water Feasibility Study. I have served as Assemblyman since 2014 and am familiar with the severity of the drought conditions our state currently faces. Last year, Sutter County experienced its driest year to date over the past 128 years. With mandatory water restrictions already in place, projects that seek to maximize the use of recycled water are necessary to support the long-term resiliency of our water supplies.

The proposed project will study the feasibility of converting the City's wastewater treatment facility to include a third and final stage to improve the effluent quality and increase its water reuse capacity. A tertiary wastewater treatment plant is an effective solution for promoting water resiliency and sustainability, as well as conserving groundwater resources during drought. It enables the reuse of treated wastewater for various purposes, such as irrigation, landscaping, and industrial uses. Furthermore, this type of wastewater treatment employs advanced technology that allows it to operate more efficiently than traditional systems with less impact on the environment, consuming less energy and resulting in fewer emissions.

This proposed project is an essential step for Yuba City to increase its water resiliency, sustainability, and long-term water supply. For these reasons, I urge you to give the City's funding request the utmost consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "J. Gallagher", written over a horizontal line.

JAMES GALLAGHER  
Assemblymember, Third District



# SUTTER COUNTY

## DEVELOPMENT SERVICES DEPARTMENT

Building Inspection  
Code Enforcement

Engineering/Water Resources  
Environmental Health

Planning  
Road Maintenance

February 15, 2023

Secretary Deb Haaland  
U.S. Department of the Interior, Bureau of Reclamation  
Denver Federal Center  
Bldg. 67, Room 152  
Denver, CO 80225

**RE: Support for Yuba City's Grant Application to the Bureau of Reclamation**

Dear Madam Secretary:

The Sutter Subbasin Groundwater Management Coordination Committee (SSGMCC) is writing in support for Yuba City's application to conduct a Wastewater Treatment Facility (WWTF) Advanced Treatment and Recycled Water Feasibility Study. The 2014 Sustainable Groundwater Management Act (SGMA) promotes the importance of long-term groundwater management throughout the state. As the climate crisis intensifies, California droughts are becoming more commonplace and more intense. Communities across the state are experiencing water shortages. Snowpack levels are not meeting our needs. Groundwater is being drained more quickly than it can be recharged, and California reservoirs are being severely impacted. Currently, 100% of Sutter County is considered to be in severe drought based on the U.S. Drought Monitor website.\*

The City of Yuba City is seeking funding to undertake a comprehensive feasibility study that will lay the groundwork for the City to convert its Wastewater Treatment Facility (WWTF) to a tertiary treatment plant and the necessary conveyance system to distribute high-quality WWTF effluent to recycled water consumers. This study is a critical step toward improving the City's water resiliency and sustainability. It will aid in reducing the pressure on existing water sources while protecting the environment from pollutants and contaminants and maintaining ecological balance for long-term sustainability.

The SSGMCC strongly supports Yuba City's feasibility study to conserve our precious water sources strained due to drought and climate change impacts. It is crucial that the City pursue investments that lead to water savings and long-term sustainability. Thank you in advance for your consideration of this application.

Sincerely,

Guadalupe Rivera  
Principal Engineer  
Sutter Subbasin Groundwater Sustainability Plan Administrator

\*US Drought Monitor website: <https://droughtmonitor.unl.edu/CurrentMap/StateDroughtMonitor.aspx?CA>