

Increasing Water Supply Reliability for Ecological Benefits in the Butte Creek Watershed

WaterSMART Planning and Project Design for FY 2024

Catalog of Federal Domestic
Assistance Number: 15.507



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TECHNICAL PROPOSAL CONTENT

1. Executive Summary

Applicant: Western Canal Water District, Nelson, Butte County, California

The lasting effects on the Northern Sacramento Valley of water years 2020 through 2022 – the driest three-year period on record – have demonstrated the devastating and persistent impacts of climate change. According to a University of California, Davis report, the impacts of the drought in the Sacramento Valley in 2022 alone were estimated to result in 14,300 jobs lost, \$1.3 billion in lost economic value, and \$732 million in lost labor income, in addition to critical environmental degradation. National wildlife refuges in the Northern Sacramento Valley received just 15% to 18% of normal water supplies and with 370,000 acres of farmland fallowed, the native fish, birds, and other wildlife that found their homes and food in the region’s rice fields and orchards greatly diminished.

Though conditions have improved in 2024, there remains a pressing need to plan for and implement projects to improve water management and supplies, recognizing the vulnerabilities of the Northern Sacramento Valley to water scarcity and the high threat of returning to the Exceptional Drought conditions that plagued the region just 24 short months ago. As such, the **Western Canal Water District** (District) – a Northern Sacramento Valley water delivery authority that currently encompasses a land area of approximately 67,500 acres – is prudently planning and designing a critical medium-scale water management construction project that will improve the efficiency of water delivery, resulting in greater water savings, increased water quality, and enriched habitat for fish and wildlife in the Butte Creek Watershed. The District holds pre-1914 water rights to 150,000 acre feet of natural flow from the Feather River, 145,000 acre feet from the storage water at the Oroville Dam, and 11,400 acre feet from Butte Creek. The full project will include the planning, design, and construction of a state-of-the-art fully-automated water control structure at the District’s Front Slide Gates water regulation site. This project will be a solution to the current system in which gates must be manually raised or lowered with a cable and truck-mounted wench, a labor-intensive process that allows for little flexibility to meet timely flow and fluctuation impacts, creating negative downstream impacts that reduce water quality and jeopardizing crop quality as well as fish and wildlife health. Operation of the slide gates is integral to the supply and management of water to 20,000 acres of rice fields, as well as two State Fish and Wildlife refuges and privately-managed wetlands, and is also positioned in a critical flood control channel. Thus, the increased operational efficiency, effectiveness, flexibility, and monitoring made possible by this project will be transformative for landowners and the environment alike.

Still, a construction project of this size and scope requires diligent planning and specialized expertise, necessitating rigorous design and a collaborative approach to implementation. To facilitate this needed work, Western Canal Water District is applying for **\$400,000 under Task B, Project Design Grants with Ecological Benefits** to offset costs related to the project design, which will be completed by renowned water engineering experts Davids Engineering, Inc. Initial design work has been completed and with grant funds to support work accomplished from the release of this funding opportunity, a final 100% design level will be completed by June 1, 2025.

Given the incredible importance of this project to the Feather River and Butte Creek Watersheds, as well as the greater region, including on State-owned land, this project has garnered significant partnerships and support from key regional stakeholders including among others: the California Department of Fish and Wildlife; Ducks Unlimited; Northern California Water Association; Reclamation District 2106; Butte County Department of Water and Resource Conservation; and landowners Larrabee Farms and Lucky Shot Ranch. ▪

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2. Project Location

The Western Canal Water District is located directly west of the Thermalito Afterbay – a diversion pool downstream of Lake Oroville – and to the north and west of the unincorporated rural community of Richvale, extending into Glenn County and proceeding southerly along Butte Creek almost to the Colusa County-Glenn County border. The District is located within the Butte Creek and Cherokee Watersheds.



Established in 1984, the District incorporates a total of 67,500 acres, of which 59,000 acres are irrigable acres. Butte County is home to approximately 66 percent of these acres, with the remaining acreage located in adjacent Glenn County. The District is comprised primarily of agricultural lands, 90 percent of which are farmed in rice. The District has 258 canal turnouts supplying water to 150 customers for agricultural irrigation, rice straw decomposition, waterfowl and wildlife, and other agricultural uses within its boundaries.

The proposed project will be located along Nelson Road at 39°32'50.0"N and 121°54'13.9"W in Butte County, approximately 0.3 miles northeast of 7 Mile Road. Positive project impacts will be realized by the adjacent Upper Butte Basin Wildlife Area, managed by the California Department of Fish and Wildlife, as well as downstream impacts to the Delevan National Wildlife Refuge and Sacramento National Wildlife Refuge, managed by the U.S. Fish and Wildlife Service. ■

3. Project Description

To effectively plan for the installation of state-of-the-art fully-automated Front Slide Gates to better serve the Feather River and Butte Creek Watersheds, the Western Canal Water District will partner with Davids Engineering Inc. (Davids Engineering) to complete a comprehensive design-bid-build package. The intent of this proposal is to effectively plan for the full-scale construction project to ensure its timely and efficient completion, as well as to incorporate valuable stakeholder feedback in the final project design.

The technical aspects of the proposal will include two main phased deliverables to be completed by Davids Engineering:

1. The completion of **30% design drawings**. These drawings will be subject to revision and refinement as the design progresses towards completion. It is recognized that feedback from stakeholders, further analysis, and detailed engineering may lead to changes in the design before it is finalized for construction. The main design products to be developed through this task are:
 - a. Site Plan: A basic layout of the project site showing the location of slide gates, access points, utilities, and other site features.
 - b. Preliminary Details: Basic design details including preliminary schematics and plans that illustrate the dimensions, materials, and mechanisms of the slide gates. Details of stream conditions and diversions, habitat information will be collected as well. Among others, details collected and reported will be:
 - i. Complete Ownership and Encumbrance Assessment to obtain a title report and determine existing easements.

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- ii. Survey Data to supplement preliminary engineering and define property lines.
 - iii. Geotechnical Engineering Investigation to collect soil samples for evaluation and laboratory testing.
 - iv. Operations and Performance Monitoring to monitor water level control performance during a full irrigation season.
 - c. Conceptual Renderings: Visual representations of the project to convey location and impact on the landscape.
 - d. Preliminary Cost Estimates: Initial estimates of construction costs based on the 30% design drawings.
2. The completion of **100% design drawings, draft technical specifications, a Basis of Design Report, and project cost estimates**. In addition to updates to the above design products, this phase will include the **Basis of Design Report (BOD)** as a main deliverable which will include:
 - a. Project Overview: A summary of the project including its purpose, scope, goals and objectives, and stakeholders.
 - b. Design Criteria: Detailed specifications and requirements including performance standards, regulatory requirements, stream conditions and diversions, habitat information, and budget.
 - c. Design Assumptions: Key assumptions made during the design process, such as environmental conditions, site characteristics, material properties, and operational parameters.
 - d. Design Methodology: Explanation of the approach taken to develop the design, including any analyses, simulations, or calculations performed.
 - e. System Descriptions: Descriptions of major systems, components, and processes involved in the design, including their functions, capacities, and interactions as well as safety design considerations
 - f. Technical Justifications: Rationale behind design decisions, including comparisons of alternatives, risk assessments, and considerations of cost-effectiveness, sustainability, and safety.
 - g. Coordination with Other Disciplines: Information on how the design integrates with other disciplines or systems, such as structural engineering, mechanical engineering, electrical engineering, etc.
 - h. Detailed Drawings: Essential reference documents for fabricators, contractors, and installers, ensuring that the project is built according to needed specifications and meets the required standards for functionality, durability, and safety.
 - i. Detailed Drawings: Detailed drawings on specific components or connections within the slide gates, such as hinges, tracks, rollers, locks, and seals. These drawings will provide close-up views and dimensions to guide fabrication and installation.
 - ii. Foundation Plans: Layout, dimensions, and reinforcement of the concrete footings or anchors that support the gate structure.
 - iii. Mechanical and Electrical Detail: Layouts of the mechanical and electrical systems involved, including motors, actuators, controllers, sensors, and wiring diagrams.
 - i. Material Specifications: Materials to be used for different components of the gate, such as steel for the frame, aluminum for the panels, or various types of coatings for corrosion protection.
 - j. Site Plans: Plans for erosion and sediment control, site grading, drainage, utilities, and demolition, and removal of existing infrastructure.
 - k. Permitting: Plans to ensure California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) compliance, and the preparation and submission of

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permit applications to applicable regulatory agencies. Grant funds will not be used for actual permit costs.

- l. References: Citations and sources of information used to develop the BOD report, including relevant standards, codes, regulations, and best practices.
- m. Final Cost Estimates and Construction Schedule: Estimates of construction costs based on the 100% design drawings, recognizing project timing will impact final expenses paid.

During the process of completing this technical aspect of the project, input on the project will be solicited by Western Canal Water District from key landowners and other stakeholders through individual in-person meetings with key stakeholders (including among others the California Department of Fish and Wildlife; Ducks Unlimited; Northern California Water Association; Reclamation District 2106; Butte County Department of Water and Resource Conservation) as well as through one larger meeting targeting at least 100 landowners and representatives from other regional stakeholders.

All project deliverables will align with the funding program’s objective of addressing significant threats to water supply reliability for agricultural or environmental water uses, and that demonstrate that project benefits will address the identified risks ▪

4. Evaluation Criteria

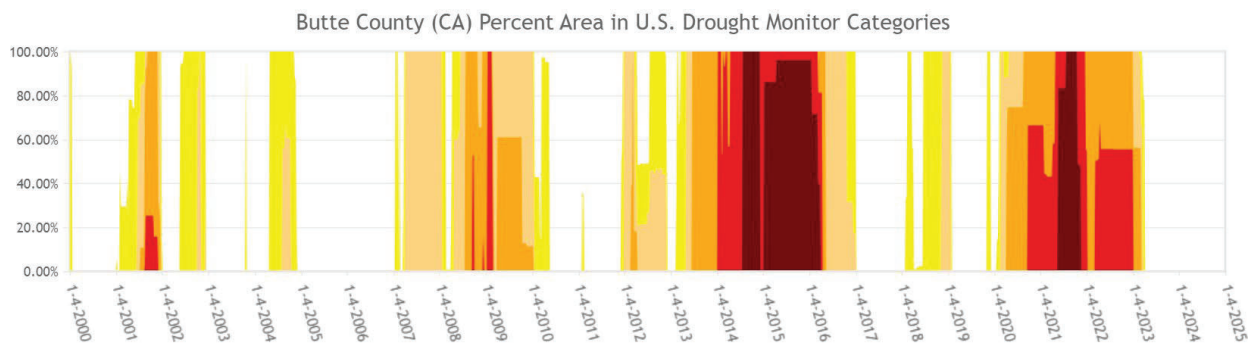
4a. Project Benefits (35 Points)

Identify the threats to water supply, water quality, and river-based ecosystem or watershed health within the geographic area of the planning or design project. This could include threats from drought conditions, climate change vulnerabilities, changes to stream conditions or water quality, significant water shortages, or other threats to the environment or watershed health.

Your response should include:

- *Information regarding past, current, and projected threats to water supplies, water quality (including surface or ground water), or river-based ecosystem or watershed health.*
- *Documentation supporting your response (e.g., the Drought Monitor, referenced statistical data, excerpts from or citations to relevant studies or analyses, local climate change data, etc.).*

Drought and climate change present serious threats to the geographic area served by the District. US Drought Monitor data shows increasingly widespread and intense drought conditions in Butte County (see graph below). The effects of these conditions on water supply reliability extend to agricultural and environmental impacts including reduced snowpack, increased groundwater pumping, and enhanced flood risk.



From the U.S. Drought Monitor website, <https://droughtmonitor.unl.edu/DmData/TimeSeries.aspx>, 5-16-2024



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Dwindling Snowpack

The water supply to the 20,000 acres of rice fields, as well as two wildlife refuges and privately-managed wetlands within the District's geographic area, face critical threats from climate change. The Sierra Nevada snowpack has historically provided vital water supply and storage that feeds the Butte Creek and Feather River watersheds, providing agricultural, environmental, and recreational benefits throughout the spring and summer when precipitation is low and water demands are high. However, a 2021 Lawrence Berkeley National Laboratory study predicts that low-to-no-snow winters may become a regular occurrence in the western US within 35 to 60 years. Such was the case in 2015, when the Phillips Station April 1 snowpack survey found bare grass for the first time in 75 years of measurements. With Sierra Nevada snowmelt providing 75 percent of California's agricultural water (NOAA Climate.gov), consecutive winters with reduced snowpack in the mountains that feed the Feather River and Butte Creek watersheds will threaten supplies of water for farming, fish, and wildlife downstream.

Groundwater Pressures

Reductions in surface water to farms directly threaten groundwater supplies and use as well: farms must increase groundwater pumping to keep crops alive, and less water is applied to support groundwater recharge. A Public Policy Institute of California policy brief published in 2022 described impacts of reduced surface water deliveries to farms during the 2021 drought year:

Surface water shortages increased groundwater pumping and other production costs. To lessen drought impacts, farmers increased pumping by nearly 4.2 maf compared to 2002–16, which was not enough to replace all lost surface water. Not all farmers have groundwater access or pumping infrastructure to make up the difference. Net water shortages were about 1.4 maf—or 6.3 percent of normal water use. Production costs rose: higher pumping raised farmers' energy bills by about \$184 million, some farmers purchased water from others willing to use less, and animal feed costs rose as well.

During drought years, the District's main water supply is subject to a reduction of up to 50 percent. To offset the reduction of surface water available, agricultural production wells have primarily relied on groundwater supplies to supplement the District's allocation. Groundwater use of individual water users within the District's boundaries depends on several factors, including weather and commodity prices.

Flood

Flood events are another critical threat to the Feather River and Butte Creek watersheds. Oroville Dam, from which the District draws most of its water supply, is fed by the Feather River basin, which has a lower average elevation than other watersheds in the Sierra Nevada mountains, with a peak elevation of about 10,440 feet (US Geological Survey). As such, the basin is extremely prone to unpredictable mixed rain-snow events and rain-on-snow events, creating water management challenges to the Dam as well as to the District's canal system. The most dramatic display of these challenges occurred in February 2017 when a series of atmospheric rivers created excessive water influx to Lake Oroville, resulting in damage to the dam's spillway, near-failure of the emergency spillway, and emergency evacuation of 180,000 downstream residents. This extreme incident highlighted the vulnerabilities of the watershed to volatile flood events made more frequent by climate change, demonstrating the need to invest in water supply management throughout the watershed.

How do the threats identified in your response to the preceding bullet impact specific water uses or sectors in the geographic area of the planning or design project? Specific water uses or sectors could include agriculture, municipal water supplies (i.e., drinking water, public health and safety, etc.), hydropower or energy production, the environment, or watershed health (i.e.,

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aquatic and riparian ecosystems, species, and habitat reliant on water supplies), Tribal ceremonial, commercial, recreational, or subsistence or fishing, tourism, river-based recreation, forestry, energy or threats to infrastructure or other sectors or water uses. Your response should include:

- *Information about the specific impacts to water uses or sectors resulting from supply reliability issues within the project area. **Only address impacts to those specific water uses or sectors that are relevant to your project area.***
- *Provide supporting documentation for your response. For example, you could include support for economic impacts to specific sectors, support quantifying water shortfalls to specific sectors, data and statistics regarding fish populations, ecosystem or watershed health, fishing or recreation, records of water quality issues, excerpts or citations to studies or analyses, etc. If your project will address a specific water supply shortfall, please provide support and documentation of the specific shortfall to be addressed by your project.*

The devastating effects of climate change – characterized by increasingly severe and prolonged drought cycles – leave lasting impacts on the Northern Sacramento Valley and the geographic area this project will serve.

Habitat Impacts

The impacts of drought on agriculture and wildlife go hand-in-hand. Sacramento Valley ricelands support 230 species of wildlife, including seven million waterfowl. According to a Ducks Unlimited report, four Sacramento Valley drainage basins where rice is grown account for only 25 percent of the Central Valley’s landmass, but provide habitat for 50 percent of all waterfowl, including 85 percent of all geese (*Assessing Waterfowl Benefits From Water Used to Grow Rice in California*, 2017). This wildlife habitat is supported through strategic water management by the District and its growers, who flood rice fields after harvest as temporary wetlands to improve and enhance wildlife habitat during the critical fall/winter migration season, gaining the agronomic benefit of soil nutrition, straw decomposition, and weed and insect reduction. The intentional practice of flooding rice fields relies upon a dependable water supply; climate threats such as drought severely curtail the District’s ability to provide this dual benefit to agriculture and wildlife.

The most recent drought cycle in 2020-2022 resulted in severe reduction in water availability for wildlife habitat throughout the Northern Sacramento Valley. National wildlife refuges in the region received just 15% to 18% of normal water supplies and with 370,000 acres of farmland fallowed, the native fish, birds, and other wildlife that found their homes and food in the region’s rice fields and orchards greatly diminished.

Wetland and riparian habitat comprise some 6,500 acres within the District and include portions of the Upper Butte Basin Wildlife Area (California Department of Fish and Wildlife) and the North Central Valley Wildlife Management Area (United State Fish and Wildlife Service). The district also supplies the Llano Seco Unit of the Upper Butte Basin Wildlife Area as well as several private duck clubs within and outside of the District’s boundary. With an average winter delivery of approximately 65,000 acre feet annually for winter bird habitat, these deliveries dropped to just 7,700 acre feet in 2021.

Agriculture Impacts

Rice was introduced to the geographic area early in the 20th century and to this day remains one of the only crops suited to the heavy clay soils that dominate the District. Rice covers approximately 90 percent of the District’s agricultural lands and the Sacramento Valley comprises 95 percent of the total California rice crop, a \$1 billion industry (California Agricultural Statistics Review 2022-2023).

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According to a University of California, Davis report, the impacts of ongoing drought in the Sacramento Valley were estimated to result in 14,300 jobs lost, \$1.3 billion in lost economic value, and \$732 million in lost labor income in 2022 alone. With water reductions slashing rice acreage by half throughout the Sacramento Valley that year, farms, farmworkers, allied industries, and communities suffered. The image below compares Sacramento Valley farmland just west of the District from September 2021 (when despite drought and reduced water allocations, rice production persisted) to just one year later in 2022, when vast acres were fallowed.



The District itself benefits from pre-1914 water rights and stronger groundwater supplies, which insulated District landowners somewhat from the most severe drought impacts depicted above; but these water resources rely upon the aging and inefficient slide gate infrastructure to effectively manage its water supply. Therefore, this project is critically needed to mitigate the growing threats of drought and climate change on water supply sustainability to the agricultural lands, wildlife refuges, and privately managed wetlands served by the District.

How will the planning or design project help address the threats to water supplies and water uses identified in your response to the preceding bullets? Your response should include:

- *Information about the benefits that you expect to result from your planning or design effort and the projects you are planning or designing, to the extent known. Only address the benefits that are applicable to your project.*
- *Which sectors or water uses will benefit from your planning or design effort – and the projects you are planning or designing - and how? For example, how will your project help attain any of the following: reduce the likelihood of conflicts over water; increase resiliency to drought and climate change; sustain agricultural communities; support instream flows for species, recreation, or water quality objectives; improve the condition of rivers, streams and other water bodies for environmental values; improve reliability of drinking water; result in an action plan to improve water management; or lead to modernized water delivery infrastructure?*
- *Provide supporting documentation for your response, including referenced statistical data, excerpts or citations from studies or analyses regarding the results of similar projects, or other references.*

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This Project Design Grant, *Increasing Water Supply Reliability for Ecological Benefits in the Butte Creek Watershed*, will benefit agricultural and environmental water uses through the planning and design of a medium-scale water management construction project that will improve the efficiency of water delivery. By replacing aging infrastructure on Little Butte Creek with state-of-the-art fully-automated Front Slide Gates, this project will result in greater water savings, increased water quality, and enhanced habitat for fish and wildlife in the Butte Creek Watershed.

The District's main water supply is comprised of 150,000 acre feet of natural flow from Feather River and 145,000 acre feet of Oroville Dam storage water. Additionally, the District maintains a water right on Butte Creek for up to 11,400 acre feet, which can only be diverted during a certain period of the year.

The front slide gate structure spanning Little Butte Creek impounds inflows from the District's Western Main Canal during the agricultural production season, maintaining the upstream water surface at elevated levels to enable water diversion and delivery throughout the District via its canal systems. The impounded area, or "Reservoir," facilitates diversions to the Main Canal and the Ward Canal that provide critical irrigation supply to approximately one third of the District's service area (~20,000 acres), which would otherwise be reliant on groundwater. These fields are optimally located within the Pacific Flyway and are an invaluable refuge for waterfowl and shorebirds during the winter months. The regulation of flows and levels performed by the Front Slide Gates not only manages upstream water levels for irrigation diversion, but also provides water supply to the State of California Upper Butte Basin Wildlife Area and creates aquatic and upland habitat, particularly during the typically dry summer months.

The Front Slide Gates are critical to District's ability to provide reliable and efficient water delivery. However, this is made difficult by the topographically flat nature of the Reservoir and resulting delay in surface water level increases during changing upstream flows, the lack of accurate or flexible flow control mechanisms, lack of flow measurement devices, and the significant labor and time to accomplish the limited control mechanism available. Additional risks of the current structure are safety risks to District's operational staff during seasonal adjustments, and potential catastrophic failure of the structure due to its aged condition. Additionally, the current site configuration does not support the District's district-wide modernization objectives of enhanced operational control to provide flexibility in water delivery, manage spillage, and improve measurement, monitoring, and water accounting. Therefore, the planning, design, and engineering of a front slide gate replacement structure is critically needed to preserve and enhance the level of water delivery service to irrigation customers, Upper Butte Basin Wildlife area, and habitat areas within the Reservoir; reduce operational spillage through improvement of water measurement and control infrastructure; improve operational safety and reduce the seasonal operation and maintenance effort; and retain or increase the existing flow capacity of the project site for winter flood events. Additionally, the increased flexibility of structure operation will enable the District to extend water delivery longer into the winter and spring months, providing increased habitat, groundwater recharge, flood risk reduction, and environmental benefits. Historically, the cumbersome nature of structure operations dictated that managed water deliveries be suspended at the threat of flood conditions.

This project will benefit the following program objectives:

- 1) *Lead to modernized water delivery infrastructure.* The design of the Front Slide Gates will thoroughly modernize aging water management infrastructure that currently requires manual operation. The existing structure consists of 25 67-inch-wide slide gates oriented side-by-side across the channel, totaling 150 feet in length. Four of the gates are operated via gear drive and hand-wheel, and the remaining gates are raised and lowered seasonally using a cable that is

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attached to a mobile winch, which is moved from gate to gate to individually raise and lower them.

The proposed improvements would replace the structure in its entirety with a new cast-in-place concrete structure and automated gates that provide enhanced ability to control Reservoir water levels and thus reduce unintended flow fluctuations through the Main and Ward Canal headings. The addition of flow and water level measurement, and a telemetry system for real-time monitoring and control, will enable timely and effective management decisions that can be employed during the irrigation season to conserve water, or during the winter or fall months to operate the structure to balance flood water conveyance while also providing winter flooding of rice fields for straw decomposition, waterfowl habitat, and the creation of 'fish food' that can be conveyed directly to Butte Creek.

- 2) *Increase resiliency to drought and climate change.* By improving measurement, management, and water accounting, this project will aid drought resiliency throughout the watershed, impacting both environmental and agricultural beneficiaries. The project will enable more nimble, precise, and strategic water management with automation that will allow for real-time flow adjustments in response to water needs and flow both upstream and downstream of the project, aiding drought resiliency. This precision will reduce operational spillage in the primary drain site downstream of the Front Slide Gates by an estimated 10 percent, saving approximately 350 acre feet in lost irrigation water per year for planned deliveries to farms and wildlife refuges.
- 3) *Sustain agricultural communities.* The rural agricultural communities of Biggs, Butte City, Nelson, and Richvale, located within or near the project area, rely upon the agricultural economy fed by the District for their livelihoods. By improving water management for the benefit of long term water supply, this project will help preserve the agricultural sustainability of the region. By improving surface water management and reliability, the project can be expected to reduce the need for groundwater pumping for agricultural uses, thereby preserving groundwater supply and quality throughout the Feather River and Butte Creek watersheds.
- 4) *Support instream flows for species, recreation, or water quality objectives.* As discussed above, improved water management and more precise control of water flows will improve reliability and sustainability of water deliveries that supply wildlife habitat on two wildlife refuges, several private wetlands, and critical winter habitat among rice land along the Pacific Flyway.

Is the planning or design effort for the purpose of providing domestic water supplies to a Tribe, insular area, or disadvantaged community(ies) that do not have reliable access to water supplies?

- *Provide a detailed description of the community that the project will serve.*
- *Describe the need for the new domestic water supply project including any prominent public health and safety concerns, interruptions in supply, or other reasons that the community does not currently have reliable access to domestic water supplies.*
- *Explain how the proposed project will increase reliable access to domestic water supplies. Provide a qualitative description of the degree/significance of the benefits associated with the new water supply. Quantify in acre-feet per year the average annual benefit that the new domestic water supply project will provide. How many people is it estimated to serve? How were these estimates calculated (average benefit and population)?*

This project design effort is not for the purpose of providing domestic water supplies to a Tribe, insular area, or disadvantaged community. Its benefits are primarily to environmental and agricul-

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tural water uses, although resulting reductions in groundwater pumping may be expected to preserve groundwater supplies and levels throughout the Feather River and Butte Creek Watersheds, which includes portions of the unincorporated disadvantaged community of Oroville Junction (Census Tract 06007003700).

Does the planning or design effort involve the improvement of nature-based features? If so, please describe.

The results of the planning and design effort – and the eventual construction of the project – will ultimately improve nature-based features in the Feather River and Butte Creek watersheds, namely the protection of riparian and wildlife habitat. As noted by FEMA, this is critical as restoring and protecting wetlands can improve water quality and reduce flooding as healthy wetlands filter, absorb, and slow runoff. Wetlands also sustain healthy ecosystems by recharging groundwater and providing habitat for fish and wildlife.

*Is the project for the purpose of meeting **existing environmental mitigation or compliance obligations** under Federal or State law?*

The project design effort is not for the purpose of meeting existing environmental mitigation or compliance obligations under Federal or State law. ▪

4b. Inclusion of Stakeholders, Stakeholder Support, and Previous Planning Efforts (25 Points)

Sub-Criterion B2: Task B - Project Design

If the project(s) being designed is/are supported by an existing water planning effort, please describe that effort. Planning efforts may include, but are not limited to, water management plans, water conservation plans, system optimization reviews, drought plans, watershed restoration plans, integrated regional water management plans, or other types of plans.

- *Does the referenced plan identify the project being designed as a potential water management action?*
- *If identified in a plan, how is the project prioritized in the plan?*
- *If not identified in the plan, does the proposed project implement a goal or need identified in the plan?*
- *Was the referenced plan developed or updated using a collaborative process with input from multiple and diverse stakeholders?*
- *If the referenced plan was not developed collaboratively, please explain why, for e.g., the planning effort was focused on a very small area or concerns internal to the applicant.*

The proposed project is supported by, and in alignment with, a number of water planning efforts, most significantly the **Feather River Agricultural Water Management Plan (FRRAWMP)**. The FRRAWMP was originally developed in 2014 by project contractor Davids Engineering in accordance with the Water Conservation Act of 2009 (SBx7-7) and was the first regional agricultural water management plan to satisfy the requirements of the legislation. The plan was developed in consultation with 10 water suppliers and water users as well as the Butte County Department of Water and Resource Conservation, the California Department of Fish and Wildlife (CDFW), the U.S. Fish and Wildlife Service (USFWS), and the state Department of Water Resources (DWR). Western Canal Water District Board of Directors adopted the final FRRAWMP 2020 update on April 20, 2021.

This project is designated as a “Potential Project to Enhance Water Management Capabilities” in Table 4.2 of the FRRAWMP. The plan prioritizes projects such as this one that increase local water supply reliability to enable water suppliers to better meet customer demands during periods of shortage. The plan does not prioritize individual projects by name, but rather encourages water suppliers to pursue projects to the extent that funding is available (including grant funding) and

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cost-effectiveness can be maximized. To that end, a WaterSMART Planning and Project Design grant would significantly advance the District's progress toward meeting the objectives of the FRRAWMP.

Describe any planned efforts for public outreach and stakeholder engagement during the design process. This can include, but is not limited to workshops, public meetings, or outreach tools such as using local media, outreach to known stakeholder groups, web-based outreach, social media, or other kinds of announcements, etc.

Planned efforts for public outreach and stakeholder engagement during the design process will include:

- Sharing the awarding of a WaterSMART Planning and Project Design Grant with local media to generate early interest in this project and gain initial feedback on project concept. The primary media source reached would be the Chico Enterprise-Record, the newspaper of record for Butte County, which reports a circulation of 31,488.
- Individual in-person meetings with key stakeholders, which is likely to include one-on-one meetings with representatives from known stakeholder groups such as the California Department of Fish and Wildlife; Ducks Unlimited; Northern California Water Association; Reclamation District 2106; and Butte County Department of Water and Resource Conservation. The District has well-established relationships with these partners, often working collaboratively to implement projects of mutual interest. Individualized meetings sharing project design concepts and plans will allow for more direct and comprehensive feedback specific to meeting the goals and objectives of each organization.
- Sharing of project design concepts and soliciting public feedback from one larger public meeting targeting at least 100 landowners and representatives from other regional stakeholders. This meeting would be held in March 2025. This will be open to all regional landowners, as well as representatives from other stakeholder organizations such as the Butte County Farm Bureau and California Rice Commission, among others.
- Web-based outreach through the posting of project design documents on the Western Canal Water District website and sharing this availability with the District's current email distribution list, reaching approximately 200 individuals, including local landowners, local and regional government officials and representatives from local environmental stakeholder groups.

In addition to these proactive measures of engagement, the District will comply with all public noticing required for CEQA and NEPA to ensure all entities that would be potentially be impacted have the opportunity to provide valuable input on this project.

For Tribal strategies or plans that were developed collaboratively with multiple Tribal interests, but did not include collaboration with external entities, please provide explanation as to why collaboration with entities external to the Tribe were not involved in the development of the strategy or plan.

This is not applicable to this project; this project is not a Tribal strategy.

Describe stakeholder support for the proposed project (i.e., the design project and/or the project you are designing). Supporting documentation for this sub-criterion could include letters of support from stakeholders or a description of feedback from interested stakeholders.

This project has strong support from a diverse array of stakeholders including the California Department of Fish and Wildlife; Ducks Unlimited; Northern California Water Association; Reclamation District 2106; Butte County Department of Water and Resource Conservation. Letters of support from these stakeholders are included with this application. This diverse support demonstrates both landowner and ecological benefits of this project and the broad acceptance of the proposed project details.

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Is there opposition to the proposed project? If so, describe the opposition and explain how it will be addressed. Opposition will not necessarily result in fewer points.

There is no known opposition to the proposed project. To date all consultative agencies, organizations, and individuals have been widely supportive of the water management improvement effort.

4c. Ability to Meet Program Requirements (20 Points)

Describe how the project will address the program specific requirements described in the appropriate program-specific appendix.

This proposal will address the program specific requirements described in Attachment 2 – Project Design Grants, with project deliverables at the conclusion of the project to include a Basis of Design document; site-specific design drawings; details and specifications for material supply and construction; and a full construction cost estimate and schedule.

Describe the approach that will be undertaken to meet the applicable program components and requirements.

- *Include a preliminary project schedule that shows the stages and duration of the proposed work including major tasks, milestones, and dates. For each task and milestone, indicate who will have the primary responsibility for completion. Proposals that provide a detailed project schedule broken down by tasks and subtasks with identified milestones will be prioritized.*
- *Proposals with a budget and budget narrative that provide a reasonable explanation of project costs will be prioritized.*
- *If prior planning work will be relied on to meet any of the required program components, please explain and describe the work that will be relied on. For example, if you are applying for a Drought Contingency Plan and already have a water shortage allocation based on drought stages, please describe this and how it will be incorporated into the Drought Contingency Plan.*

The District has engaged Davids Engineering to propose a comprehensive design-bid-build project approach that will be completed in three phases, with Phase I (30% Design) and Phase II (100% Design) the subject of this WaterSMART Planning and Project Design Grant application. Phase III (Construction) will follow the completion of the project activities outlined in this proposal.

Project Work Plan

Task	Description	Duration	Milestones	Responsible
1.	Execute grant contracting and establish program-specific grant administration procedures to ensure close and effective coordination with Reclamation throughout project duration.	March 2025 – May 2025	Milestone 1: Grant contract executed with reclamation. Milestone 2: Grant admin. procedures finalized. Milestone 3: Contracts finalized with project contractors (see Budget, Contractual).	General Manager Ted Trimble will oversee grant contracting. Contractor Morrison will develop grant admin. procedures and timeline and support the District with grant

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Task	Description	Duration	Milestones	Responsible
2.	<p>Facilitate project management and stakeholder meetings to ensure successful coordination and completion of all project deliverables. Manage staff assignments, sub-consultants, facilitate meetings, and coordinate with the District for review of draft deliverables to share with the public. Meet biweekly throughout duration of project design phase.</p> <p>Solicit input from key landowners and other stakeholders through individual in-person meetings with key stakeholders (including among others the California Department of Fish and Wildlife; Ducks Unlimited; Northern California Water Association; Reclamation District 2106; Butte County Department of Water and Resource Conservation) as well as through one larger meeting targeting at least 100 landowners and representatives from other regional stakeholders.</p> <p>(These activities, eligible for pre-award costs per the NFO, have already begun.)</p>	August 2023 – August 2025	<p>Milestone 1: Project kickoff meeting held with all staff and contractors to review project concept and objectives.</p> <p>Milestone 2: Virtual meeting held at conclusion of the 30% design phase to discuss project progress.</p> <p>Milestone 3: In-person meeting held at conclusion of 60% design phase to review project status and discuss next steps.</p> <p>Milestone 4: Stakeholder Meetings held to review project status and seek input to support 100% design phase.</p> <p>Milestone 4: In-person meeting held at conclusion of the 100% design phase to discuss project progress.</p>	<p>reimbursement and reporting.</p> <p>Davids Engineering will lead the project team.</p> <p>Assistant General Manager Anjanette Shadley will conduct stakeholder outreach.</p>
3.	<p>Complete 30% Design Services, identifying and defining the major project components necessary to meet the objectives, and documenting them in a Basis of Design report with conceptual design drawings articulating how the technical and functional requirements of the project will be met. Engineering analyses will include site demolition and construction considerations, hydraulic capacity, earthwork and embankment requirements, scour protection, layout of civil works, water control gate options and requirements, accessibility considerations (catwalks and access roads), and utility service requirements.</p>	August 2023 – August 2024	<p>Milestone 1: Technical and functional criteria of the design identified and approved by the District.</p> <p>Milestone 2: Engineering analysis completed.</p> <p>Milestone 3: Digital design schematics and estimate of probable construction costs completed.</p>	<p>Davids Engineering will lead the project team.</p>

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Task	Description	Duration	Milestones	Responsible
	<p>Conduct engineering data collection, to include:</p> <ul style="list-style-type: none"> a. Complete <u>Ownership and Encumbrance Assessment</u> to obtain a title report and determine existing easements. b. Obtain <u>Survey Data</u> to supplement preliminary engineering and define property lines. c. Perform <u>Geotechnical Engineering Investigation</u> to collect soil samples for evaluation and laboratory testing. d. Conduct <u>Operations and Performance Monitoring</u> to monitor water level control performance during a full irrigation season. 			
4.	<p>Complete 100% Design Services, to include final hydraulic, civil, and mechanical design and preliminary structural and electrical engineering calculations, evaluations, and assessments to finalize design of the major project components and associated details and requirements. A preliminary construction schedule will be defined. Coordination will occur with gate manufacturers to finalize site design requirements and incorporate gate specifications into the design. Technical information necessary to support a new service connection application to Pacific Gas and Electric (PG&E) will be finalized.</p> <p>Conduct Environmental Compliance and Permitting to achieve compliance with CEQA and NEPA.</p> <ul style="list-style-type: none"> a. <u>Complete CEQA Initial Study (IS) and Mitigated Negative Declaration (MND) statement.</u> b. <u>Complete Cultural Resources Documentation</u> in support of project compliance with Section 106 of the National Historic Preservation Act and CEQA. c. <u>Complete Regulatory Agency Permitting</u>, coordinating with the United States Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), California Department of Fish and Wildlife 	August 2024 – August 2025	<p>Milestone 1: Design drawings expanded with additional detail including specific sizes, dimensions, qualities, layouts, orientations, and assemblies.</p> <p>Milestone 2: Value engineering process utilizing the Functional Analysis System Technique (FAST) conducted.</p> <p>Milestone 3: Final (100%) design drawings completed.</p> <p>Milestone 4: CEQA IS/MND statement completed.</p> <p>Milestone 5: Cultural Resource Documentation obtained.</p> <p>Milestone 6: Regulatory agency permitting submitted.</p>	Davids Engineering will lead the project team.

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Task	Description	Duration	Milestones	Responsible
	(CDFW), United States Fish and Wildlife Service (USFWS), and the National Marine Fisheries Service (NMFS) to prepare and submit required permits, including USACE Section 404 – Nationwide Permit (NWP); RWQB Clean Water Act (CWA) Section 401; CDFW Streambed Alteration Agreement – Section 1600; Consistency Determination from CDFW; USACE/Central Valley Flood Protection Board (CVFPB) encroachment permit; and Section 408 permit.			

Describe the availability and quality of existing data and models applicable to the proposed plan or design.

The District has completed extensive collaborative exploration and preliminary engineering to reach the current phase of the project in coordination with Davids Engineering. With more than 30 years of experience serving water managers, Davids Engineering brings unparalleled experience designing, engineering, and executing large water projects. Their success is driven by the expertise of the senior professional staff who will execute this project, and their deep relationships with local, state, and federal agencies to access, understand, and utilize a wealth of existing data and models applicable to the proposed design. These include public sources as well as private, proprietary engineering technology and tools. As such, there are no restricting factors to the availability and quality of existing data and models that will impact this proposal’s outcomes.

Identify staff with appropriate technical expertise and describe their qualifications. Describe any plans to request additional technical assistance from Reclamation or by contract.

This project benefits from the strong technical and administrative expertise and qualifications of the project team. These include:

General Manager Ted Trimble, Western Canal Water District (Project Oversight): This project will benefit greatly from the deep experience of General Manager Ted Trimble in leading complex water projects for the District. He holds a bachelor’s degree in physical science with a pattern in hydrology from California State University, Chico. He joined Western Canal Water District in 1992 as a water operator. In 1995, he became Special Projects Manager and was promoted to Assistant General Manager in 2001. In 2003, he became General Manager. He specializes in complex water resource issues including negotiations and project management.

Assistant General Manager Anjanette Shadley, Western Canal Water District (Project Manager): Ms. Shadley joined the District in 2011 as a Special Projects Manager, promoting quickly to Office Manager and then Assistant General Manager in 2015. In this role Ms. Shadley manages the regulatory, legislative, communication, and human resources functions for the District and serves as the District’s subject expert in the Sustainable Groundwater Management Act (SGMA). She holds a bachelor’s degree from California State University, Chico in interdisciplinary studies focusing on agricultural policy and politics and a Master of Water and Environmental Law from McGeorge School of Law. Ms. Shadley will benefit this project with her versatile administrative and project management skills.

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Supervising Engineer Tommy Ostrowski, Davids Engineering (Engineering Lead): Mr. Ostrowski joined Davids Engineering in 2010 with a bachelor's degree in bioresource and agricultural engineering from California Polytechnic State University, San Luis Obispo. Mr. Ostrowski leads an integrated and multidisciplinary team that provides industry-leading design-bid-build services to transformational water projects that advance sustainable agricultural water systems. Among the projects that Mr. Ostrowski and his team have led include the Antelope Creek Fish Passage Improvement Project (a state-of-the-art 100-cfs diversion facility with chevron-style fish screen, juvenile bypass return to Antelope Creek, and irrigation flow control, flow measurement and water conveyance infrastructure); Richvale Irrigation District Phase I Infrastructure Modernization Project (retrofit and automation of nine existing water control structures with an in-house SCADA system that enables remote control and real-time monitoring); and the Orland Unit Water Users' Association Project Distribution System Modernization (to support more efficient on-farm water use with a 49.5 acre-foot regulating reservoir and replacement of 35 water level control structures and 18 lateral headgates with state-of-the-art automation and control). Mr. Ostrowski is a registered Civil engineer licensed by the State of California.

Managing Principal Toni Scott, Morrison (Grant Administration): Ms. Scott holds a bachelor's degree in political science and agriculture business from California State University, Chico, and a master's degree in print journalism from Boston University. Ms. Scott and her team have written more than \$410 million in successful grant proposals for industry commodity associations; grower-owned cooperatives; private for-profit entities; trade associations, and nonprofit organizations. Morrison's success in grant writing is bolstered by Ms. Scott's strategic approach to budget and work plan development in support of smooth, accurate, and effective grant administration in full coordination with the awarding agency. Bolstered by a team of CPAs and bookkeepers, Morrison is uniquely positioned to support clients with effective grant administration, including timely and accurate reimbursements and cohesive grant reporting.

Describe any new policies or administrative actions required to implement the plan or project being designed.

Phase III (Construction) of the project will require a resolution of the Board of Directors of Western Canal Water District to approve the project design and obligate the funds. Therefore, a robust and inclusive project planning and design phase, as this proposal aims to undertake, is critical to advancing this important and much-needed modernization effort in support of improved water management and water supply sustainability in the Butte Creek watershed. ■

4d. Presidential and Department of the Interior Priorities (15 points)

Sub-criterion No. D1. Climate Change

Please provide specific details and examples on how the project will address the impacts of climate change and help combat the climate crisis.

As discussed in detail in Section 4.a. (Project Beneficiaries), this project will directly address the impacts of climate change and help combat the climate crisis by increasing climate resiliency through improved water management in the Butte Creek Watershed and the Western Canal Water District, where two state wildlife refuges and several privately managed wetlands rely upon District water for wildlife habitat. The project will also benefit agricultural users with more reliable water supply throughout the year, allowing them to maintain agricultural production that feeds the world, sustains the local community, and provides winter habitat to 7 million migratory birds along the Pacific Flyway.

Does this proposed project strengthen water supply sustainability to increase resilience to climate change? Does the proposed project contribute to climate change resiliency in other ways not described above?

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The proposed project that this Project Design Grant will advance directly strengthens water supply sustainability to increase resilience to climate change. By modernizing the Front Slide Gates on Little Butte Creek with improved water level monitoring and automated control, the project will allow the District to better regulate water levels and flow and rapidly respond to water supply fluctuations in support of water use efficiency, a key element to water supply sustainability. This enhanced control and the resulting reductions in operational spillage will improve surface water deliveries to water users when they are needed, reducing reliance upon groundwater and preserving this critical groundwater supply.

Sub-criterion No. D2. Disadvantaged or Underserved Communities

Please use the White House Council on Environmental Quality's interactive Climate and Economic Justice Screening Tool, available online at Explore the map – Climate & Economic Justice Screening Tool (<https://screeningtool.geoplatform.gov>) to identify any disadvantaged communities that will benefit from your project.

This project's benefits are primarily to environmental and agricultural water uses, although resulting reductions in groundwater pumping may be expected to preserve groundwater supplies throughout the Butte subbasin, which includes portions of the unincorporated disadvantaged community of Oroville Junction (Census Tract 06007003700).

If applicable, describe how the project benefits those disadvantaged or underserved communities identified using the tool. For example, does the project increase reliability of water supplies, improve water quality, provide economic growth opportunities, improve or expand public access to natural areas or recreation, or provide other benefits in a disadvantaged or underserved community?

As noted above, this disadvantaged community will benefit from the enhanced water supply sustainability of groundwater in the Butte subbasin that this proposed project will promote.

Sub-criterion No. D3. Tribal Benefits

Does the proposed project directly serve and/or benefit a Tribe? Will the project improve water management for a Tribe?

No, the project does not directly serve or benefit a Tribe.

Does the proposed project support Tribal resilience to climate change and drought impacts or provide other Tribal benefits such as improved public health and safety by addressing water quality, new water supplies, or economic growth opportunities?

No, the project does not directly serve or benefit a Tribe.

Does the proposed project support Reclamation's Tribal trust responsibilities or a Reclamation activity with a Tribe?

No, the project does not directly serve or benefit a Tribe. ▪

4e. Nexus To Reclamation (5 points)

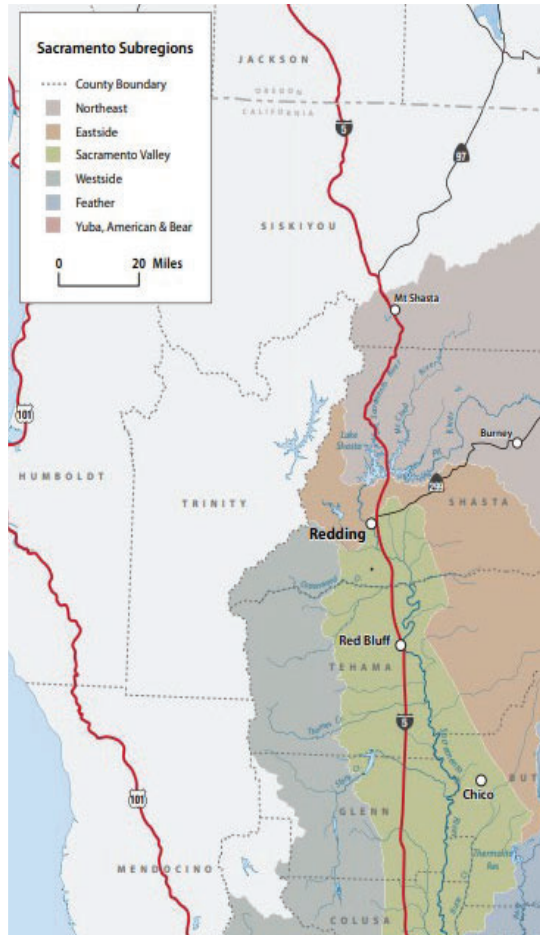
There is a strong nexus to this project to a Reclamation project within the planning area, namely California's Central Valley Project. With a more efficient, automated water flow system, water that would have otherwise been diverted will remain in Lake Oroville for discretionary use by Western Canal Water District. Such discretionary uses could include, but are not limited to, potential augmentation of supply to serve landowners and residents within the Central Valley Project footprint. Along with the State Water Project, the Central Valley Project plays an important role in Sacramento River navigation, Delta water quality management, supplying agricultural, domestic and industrial water, generating electric power, conserving fish and wildlife, creating opportunities for recreation and enhancing water quality. Thus, the water supply augmentation benefits of

Increasing Water Supply Reliability for Ecological Benefits in the Butte Creek Watershed

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this project and the potential for increased supply in Lake Oroville have the potential to support Reclamation's ongoing coordinated operating agreement with the State of California.



Source: Sacriver.org

Is the planning area in the same basin as a Reclamation project, facility, or activity?

The planning area for this project does exist in the same basin as a Reclamation project, facility, or activity, specifically the Sacramento River Basin. The Butte Creek Watershed is a key watershed within this basin, with the Sacramento River Basin the largest watershed in the state of California, covering 27,000 square miles and carrying approximately 30% of the state's total surface water. Reclamation projects, facilities, or activities in the same basin as this planning area include the Shasta Power Plant; the Sacramento Canals Unit Project; the Orland Project; the Red Bluff Diversion Dam; and the Stony Gorge Dam, among others.

*In what way will the proposed project benefit a basin where a Reclamation project, facility, or activity is located? For example, will the project **improve watershed health** in a river basin that is adversely impacted by a Reclamation water project?*

This project will improve watershed health and promote ecological benefits in a basin where there are substantial impacts from Reclamation projects. For example, Butte Creek is one of **only four** Sacramento River Tributaries with remaining populations of spring-run Chinook salmon, with Butte Creek a keystone in preserving and recovering the spring-run.

Spring-run Chinook Salmon were historically the most abundant race in the Central Valley. Now only a remnant runs, and due to the small number of non-hybridized populations remaining and low population sizes, Central Valley spring-run Chinook Salmon were listed as threatened under both the state and federal endangered species acts in 1999.

The implementation of this project will result in an increased ability to meet timely water flow and fluctuation needs, positively impacting water temperatures and water quality that better promote fish and wildlife health.

Does the applicant have a water service, repayment, or O&M contract with Reclamation?

Not applicable, the District does not have a water service, repayment, or O&M contract with Reclamation.

If the applicant does not hold a type of contract named above, does the applicant receive Reclamation water through a Reclamation contractor or by any other contractual means?

The District does not receive Reclamation water through a Reclamation contractor or by any other contractual means. ■■

Increasing Water Supply Reliability for Ecological Benefits in the Butte Creek Watershed
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APPENDIX I: OFFICIAL RESOLUTION

The Western Canal Water District Board of Directors resolution of approval to enter into a U.S. Bureau of Reclamation WaterSMART Planning and Project Design Grants for Fiscal Years 2023 and 2024 grant/cooperating agreement and provide the matching 25% cost-share, approved May 21, 2024, is attached. ▪



RESOLUTION NUMBER 2024-02

**RESOLUTION OF THE BOARD OF DIRECTORS OF
WESTERN CANAL WATER DISTRICT
US Bureau of Reclamation WaterSMART
Planning and Project Design (R23AS00109)**

WHEREAS, the Western Canal Water District submitted an application to the U.S. Bureau of Reclamation WaterSMART Planning and Project Design Grants for Fiscal Years 2023 and 2024 to improve water management and water supply sustainability in the Western Canal Water District service area,

WHEREAS, Western Canal Water District will provide the matching 25% cost-share from District operating funds with no constraints on availability of funds, and

WHEREAS, Western Canal Water District will work with the US Bureau of Reclamation to meet established deadlines for entering into a grant/cooperating agreement,

NOW, THEREFORE, be it resolved, that the Western Canal Water District Board of Directors designates Ted Trimble to sign a contract on behalf of the District and designates Ted Trimble, as the District's representative to sign the progress reports and approve reimbursement claims.

PASSED AND ADOPTED this 21st day of May, 2024.

AYES: Johnson, Larrabee, Lundberg, Sheppard, Davis
NOES: 0
ABSENT: 0
ABSTAIN: 0

By 
Greg Johnson, President

ATTEST:


Ted Trimble, Secretary to the Board

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APPENDIX G: LETTERS OF SUPPORT

The following letters of support from stakeholders in the region demonstrate widespread and robust support for the project and a dedicated commitment to involvement in the planning process:

- California Department of Fish and Wildlife (CDFW)
- Ducks Unlimited
- Northern California Water Association (NCWA)
- Butte County Department of Water and Resource Conservation
- Reclamation District 2106
- Larrabee Farms
- Lucky Shot Ranch/Sierra Pacific Industries ▪



State of California – Natural Resources Agency

DEPARTMENT OF FISH AND WILDLIFE

Upper Butte Basin Wildlife Area

9256 Hwy 162, P.O. Box 190

Butte City, CA 95920

UpperButteBasin.wla@wildlife.ca.gov

www.wildlife.ca.gov

May 13, 2024

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



Ted Trimble
General Manager
Western Canal Water District
PO Box 190
Richvale, CA 95974

Dear Ted,

California Department of Fish and Wildlife (CDFW) is pleased to support Western Canal Water District's application for a Fiscal Year 2024 WaterSMART Planning and Project Design Grant to develop the site-specific design for Western Canal's critically needed water diversion facility upgrades adjacent to the Thermalito Afterbay.

As you know, CDFW is a conservation Agency which is dependent on delivery of water to our lands. Therefore, we are a critical stakeholder in this project and in the broader water infrastructure and supply system affecting California and the Western United States. As such, our support demonstrates broad and appropriate stakeholder inclusion and engagement in the proposed project's planning efforts.

We support this project and its efforts to shore up critical water supply reliability and resiliency for agricultural landowners encompassing 59,000 acres of irrigated agricultural land, with extended downstream environmental and recreational benefits such as the successful Butte Creek Salmon Recovery project and the winter waterfowl migration that depends upon California ricelands. Given the disastrous impacts of recent droughts on these populations, such efforts are deeply needed in the Feather River and Butte Creek watersheds, which feed Western Canal's diversion gates.

This letter should be strongly considered when evaluating your proposed project against the WaterSMART Planning and Project Design Grants, Evaluation Criteria B: Inclusion of Stakeholders, Stakeholder Support, and Previous Planning Efforts.

We look forward to supporting your project's progression, and we commit to participating in future outreach efforts, including providing relevant data, research, and technical assistance as requested.

Sincerely,

Dave VanBaren

Senior Environmental Scientist (Supervisor)

Dave.vanbaren@wildlife.ca.gov

530-982-2169

Conserving California's Wildlife Since 1870



May 14, 2024

Western Regional Office
3074 Gold Canal Drive
Rancho Cordova, CA 95670
Main: 916-852-2000
www.ducks.org

Ted Trimble
General Manager
Western Canal Water District
PO Box 190
Richvale, CA 95974

Dear Mr. Trimble,

Ducks Unlimited, Inc. (DU) is pleased to support Western Canal Water District's (WCWD's) application for a Fiscal Year 2024 WaterSMART Planning and Project Design Grant to develop the site-specific design for WCWD's critically needed water diversion facility upgrades adjacent to the Thermalito Afterbay.

As you know, DU is a non-profit wetland conservation organization that conserves, restores, and manages wetlands and associated habitats for North America's waterfowl. These habitats also benefit other wildlife and people. Improving water conveyance and water use efficiency for wetlands and waterfowl-friendly agricultural lands is a major focus of our work in the Sacramento Valley. DU is currently involved in several such projects on both public and privately-owned wetlands that receive water from WCWD. Therefore, we are a critical stakeholder in this project and in the broader water infrastructure and supply system affecting California and the Western United States. As such, our support demonstrates broad and appropriate stakeholder inclusion and engagement in the proposed project's planning efforts.

We support this project and its efforts to shore up critical water supply reliability and resiliency for agricultural and wetland landowners encompassing about 59,000 acres of land within WCWD. The project will have extended downstream environmental and recreational benefits such as supporting the successful Butte Creek Salmon Recovery Project on which DU, WCWD, and others previously partnered; and the winter waterfowl migration that depends upon California ricelands and wetlands. This effort is deeply needed to provide habitat resiliency for these populations, particularly during drought.

This letter should be strongly considered when evaluating your proposed project against the WaterSMART Planning and Project Design Grants, Evaluation Criteria B Inclusion of Stakeholders, Stakeholder Support, and Previous Planning Efforts. We look forward to supporting your project's progression, and we commit to participating in future outreach efforts, including providing relevant data, research, and technical assistance as requested.

Sincerely,

Jeffrey McCreary
Director of Operations



NCWA
Northern California Water Association

#SourcingOurSustainableFuture

455 Capitol Mall, Suite 703
Sacramento, CA 95814-4496
(916) 442-8333
www.norcalwater.org



May 15, 2024

Ted Trimble
General Manager
Western Canal Water District
PO Box 190
Richvale, CA 95974

Dear Ted,

The Northern California Water Association (NCWA) is pleased to support Western Canal Water District's application for a Fiscal Year 2024 WaterSMART Planning and Project Design Grant to develop the site-specific design for Western Canal's critically needed water diversion facility upgrades adjacent to the Thermalito Afterbay.

As you know, NCWA is committed to advance the economic, social, and environmental sustainability of the Sacramento Valley by enhancing and preserving its water rights, supplies, and water quality for the rich mosaic of farmlands, cities and rural communities, refuges and managed wetlands, and meandering rivers that support fisheries and wildlife. Therefore, we are a critical stakeholder in this project and in the broader water infrastructure and supply system affecting California and the Western United States. As such, our support demonstrates broad and appropriate stakeholder inclusion and engagement in the proposed project's planning efforts.

We support this project and its efforts to shore up critical water supply reliability and resiliency for agricultural landowners encompassing 59,000 acres of irrigated agricultural land, with extended downstream environmental and recreational benefits such as the successful Butte Creek Salmon Recovery project and the winter waterfowl migration that depends upon California ricelands. Given the disastrous impacts of recent droughts on these populations, such efforts are deeply needed in the Feather River and Butte Creek watersheds, which feed Western Canal's diversion gates.

This letter should be strongly considered when evaluating your proposed project against the WaterSMART Planning and Project Design Grants, Evaluation Criteria B: Inclusion of Stakeholders, Stakeholder Support, and Previous Planning Efforts.

We look forward to supporting your project's progression, and we commit to participating in future outreach efforts, including providing relevant data, research, and technical assistance as requested.

Sincerely yours,

Todd N. Manley
Director of Government Relations



Sourcing our sustainable future through responsible management of the essential resource that millions of birds, hundreds of thousands of fish, thousands of farms and millions of people all rely on—water!



Water and Resource Conservation

Kamela Loeser, Director

308 Nelson Avenue
Oroville, California 95965

T: 530.552.3595
F: 530.538.3807

buttecounty.net/waterresourceconservation
bcwater@buttecounty.net

May 17, 2024

Ted Trimble
General Manager, Western Canal Water District
PO Box 190
Richvale, CA 95974

Dear Ted,

The Butte County Department of Water and Resource Conservation is pleased to support Western Canal Water District's application for a Fiscal Year 2024 WaterSMART Planning and Project Design Grant to develop the site-specific design for Western Canal's critically needed water diversion facility upgrades adjacent to the Thermalito Afterbay.

As you know, the Department of Water and Resource Conservation's mission is to manage and conserve water and other resources for Butte County by working cooperatively with water agencies to enhance the County's water supply through creative water management. Therefore, the County is a critical stakeholder in this type of project work and in the broader water infrastructure and supply system affecting California. As such, we hope that this letter of support and our participation in future project planning demonstrates Western Canal Water District's efforts to facilitate stakeholder inclusion and engagement in the proposed project's planning process.

We support this project and the need to shore up critical water supply reliability and resiliency for agricultural landowners encompassing 59,000 acres of irrigated agricultural land, with extended downstream environmental and recreational benefits such as the successful Butte Creek Salmon Recovery project and the winter waterfowl migration that depends upon California ricelands. Given the disastrous impacts of recent droughts on these populations, we applaud the efforts of the Western Canal Water District which are deeply needed in the Feather River and Butte Creek watersheds.

We hope that this letter will be strongly considered when evaluating your proposed project against the WaterSMART Planning and Project Design Grants, Evaluation Criteria B: Inclusion of Stakeholders, Stakeholder Support, and Previous Planning Efforts.

We look forward to supporting your project's progression, and we commit to participating in future outreach efforts, including providing relevant data, research, and technical assistance as needed.

Sincerely,

A handwritten signature in blue ink that reads "Kamela N. Loeser".

Kamela N. Loeser, Director
Butte County Department of Water Resource and Conservation



Reclamation District 2106
8369 Hugh Baber Lane
Chico, Ca 95928
530.342.0839

May 1, 2024

Ted Trimble
General Manager
Western Canal Water District
PO Box 190
Richvale, CA 95974

Dear Ted,

Reclamation District 2106 is pleased to support Western Canal Water District's application for a Fiscal Year 2024 WaterSMART Planning and Project Design Grant to develop the site-specific design for Western Canal's critically needed water diversion facility upgrades adjacent to the Thermalito Afterbay.

As you know, RD 2106 is a Groundwater Sustainability Agency. Therefore, we are a critical stakeholder in this project and in the broader water infrastructure and supply system affecting California and the Western United States. As such, our support demonstrates broad and appropriate stakeholder inclusion and engagement in the proposed project's planning efforts.

We support this project and its efforts to shore up critical water supply reliability and resiliency for agricultural landowners encompassing 59,000 acres of irrigated agricultural land, with extended downstream environmental and recreational benefits such as the successful Butte Creek Salmon Recovery project and the winter waterfowl migration that depends upon California ricelands. Given the disastrous impacts of recent droughts on these populations, such efforts are deeply needed in the Feather River and Butte Creek watersheds, which feed Western Canal's diversion gates.

This letter should be strongly considered when evaluating your proposed project against the WaterSMART Planning and Project Design Grants, Evaluation Criteria B: Inclusion of Stakeholders, Stakeholder Support, and Previous Planning Efforts.

We look forward to supporting your project's progression, and we commit to participating in future outreach efforts, including providing relevant data, research, and technical assistance as requested.

Sincerely,



Reclamation District 2106
8369 Hugh Baber Lane
Chico, Ca 95928
530.342.0839

Charles Thieriot
President, RD 2106
charles@llanoseco.com
(832) 723-0352





May 14, 2024

Ted Trimble
General Manager
Western Canal Water District
PO Box 190
Richvale, CA 95974

Dear Ted,

Larrabee Farms is pleased to support Western Canal Water District's application for a Fiscal Year 2024 WaterSMART Planning and Project Design Grant to develop the site-specific design for Western Canal's critically needed water diversion facility upgrades adjacent to the Thermalito Afterbay.

Larrabee Farms diverts from this project and is a critical stakeholder in the broader water infrastructure and supply system affecting California and the Western United States. As such, our support demonstrates broad and appropriate stakeholder inclusion and engagement in the proposed project's planning efforts.

We support this project and its efforts to shore up critical water supply reliability and resiliency for all agricultural landowners encompassing 59,000 acres of irrigated agricultural land, with extended downstream environmental and recreational benefits such as the successful Butte Creek Salmon Recovery project and the winter waterfowl migration that depends upon California ricelands. Given the disastrous impacts of recent droughts on these populations, such efforts are deeply needed in the Feather River and Butte Creek watersheds, which feed Western Canal's diversion gates.

This letter should be strongly considered when evaluating your proposed project against the WaterSMART Planning and Project Design Grants, Evaluation Criteria B: Inclusion of Stakeholders, Stakeholder Support, and Previous Planning Efforts.

We look forward to supporting your project's progression, and we commit to participating in future outreach efforts, including providing relevant data, research, and technical assistance as requested.

Sincerely,

Eric Larrabee
Larrabee Farms
eric@larrabeefarms.com

May 1, 2024

Ted Trimble
General Manager
Western Canal Water District
PO Box 190
Richvale, CA 95974

Dear Ted,

Lucky Shot LLC is pleased to support Western Canal Water District's application for a Fiscal Year 2024 WaterSMART Planning and Project Design Grant to develop the site-specific design for Western Canal's critically needed water diversion facility upgrades adjacent to the Thermalito Afterbay.

As you know, Lucky Shoot is a member and grower in the Western Canal Irrigation District. Therefore, we are a critical stakeholder in this project and in the broader water infrastructure and supply system affecting California and the Western United States. As such, our support demonstrates broad and appropriate stakeholder inclusion and engagement in the proposed project's planning efforts.

We support this project and its efforts to shore up critical water supply reliability and resiliency for agricultural landowners encompassing 59,000 acres of irrigated agricultural land, with extended downstream environmental and recreational benefits such as the successful Butte Creek Salmon Recovery project and the winter waterfowl migration that depends upon California ricelands. Given the disastrous impacts of recent droughts on these populations, such efforts are deeply needed in the Feather River and Butte Creek watersheds, which feed Western Canal's diversion gates.

This letter should be strongly considered when evaluating your proposed project against the WaterSMART Planning and Project Design Grants, Evaluation Criteria B: Inclusion of Stakeholders, Stakeholder Support, and Previous Planning Efforts.

We look forward to supporting your project's progression, and we commit to participating in future outreach efforts, including providing relevant data, research, and technical assistance as requested.

Sincerely,



George Emmerson
Partner, Lucky Shot LLC
530-917-4916
Gemmerson@spi-ind.com
PO Box 490628 Redding, Ca 94049

Increasing Water Supply Reliability for Ecological Benefits in the Butte Creek Watershed
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APPENDIX A: PROJECT BUDGET/BUDGET NARRATIVE

Summary of Non-Federal and Federal Funding Sources

FUNDING SOURCES	AMOUNT
Non-Federal Entities	Non-Federal Entities
1. Western Canal Water District In-Kind* (Personnel, Fringe, Indirect)	\$ 51,548
2. Western Canal Water District Cash (Morrison Grant Administration)	\$ 15,000
3. Western Canal Water District Cash (a portion of Davids Engineering Project Design Fees)	\$ 67,773
Non-Federal Subtotal	\$ 134,321
REQUESTED RECLAMATION FUNDING	\$ 400,000

Western Canal Water District seeks to leverage \$134,321 in cash and in-kind contributions with \$400,000 in requested Reclamation funding to create a final design package for a state-of-the-art front slide gate modernization project on Little Butte Creek that will result in improved water management and water supply sustainability for ecological and agricultural benefits.

As a Project Design Grant with Ecological Benefits, this project proposes to contribute 25 percent of total project costs as outlined in *Section C.2 Cost Sharing Requirements* in the Notice of Funding Opportunity.

The full budget proposal for this Project Design Grant is included in the attached Budget Narrative. ▪

Budget Detail and Narrative

A thorough budget narrative will aid the administrative review and processing of a recommended award. Amounts included in a budget and budget narrative are estimates; in the event of an award, payments will be based on actual expenditures. The following is guidance for your use in preparing a thorough budget narrative. The budget narrative provides a discussion of, or explanation for, items included in the above budget items. The guidance follows the order of the budget items. This Budget Detail and Narrative template is a suggested format to present the breakdown of your estimated costs, by category, needed to accomplish project activities.

General Instructions

1. Only fill in light blue cells, white cells contain instructions, headers, or summary calculations and should not be modified.
2. Rows can be added as needed throughout tabs 6a. through 6j. If rows are added, formulas/calculations may need to be adjusted.
3. The Budget Summary will auto-fill when each Budget Object Class category (BOC) subsection is completed.
4. Rows can be added as needed throughout sections a. through j. If rows are added, formulas/calculations may need to be adjusted.
5. The information in the Budget Summary table must correspond to Section B of the SF-424A
6. The budget estimate should include all project costs, regardless if the costs will be paid with Federal or non-Federal funds or contributed by a third-party.
7. All costs in BOC sections 6a. through 6h. must be directly related to the project activities.
8. All costs must be allowable, allocable, and reasonable in accordance with the administrative requirements and applicable cost principles prescribed in 2 CFR 200.
9. Only non-construction related equipment purchases should be included within BOC subsection 6e. Equipment.
10. All costs for sub-recipients and contractual/consultant costs that are not related to construction activities should be included within BOC subsection 6f. Contractual.
11. All construction costs, including recipient-owned equipment use costs, equipment rental and purchase costs, supply costs, engineering services, and construction contract costs must be included under BOC subsection 6g. Construction.
12. All third-party in-kind contributions of goods and services, including services performed by volunteers must be included with BOC subsection 6h. Other.
13. All costs must comply with the cost principles of 2 CFR 200 Subpart E - Cost Principles and be allowable, allocable to the project, and reasonable in amount

Links: [2 CFR 200 Subpart E - Cost Principles](#)

- [§ 200.403 Factors affecting allowability of costs](#)
- [§ 200.405 Allocable costs](#)
- [§ 200.404 Reasonable costs](#)

Cost Share Instructions

1. The budget must include at least the minimum Federal to non-Federal required cost share if applicable.
2. Cost share encompasses all contributions to the project incurred and paid for during the project. This includes payments for personnel, supplies, equipment, activities and items necessary for the project.
3. In-kind Cost Share encompasses all third party contributions to the project that do not involve a payment or reimbursement and represent donated items or services that are necessary to the performance of the project. This includes volunteer personnel hours, donated existing equipment, donated existing supplies, etc.

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Summary			
6. Budget Object Category	Total Cost	Federal Estimated Amount	Non-Federal Estimated Amount
a. Personnel	\$33,250		
b. Fringe Benefits	\$9,975		
c. Travel	\$0		
d. Equipment	\$0		
e. Supplies	\$0		
f. Contractual	\$482,773		
g. Construction	\$0		
h. Other Direct Costs	\$0		
i. Total Direct Costs	\$525,998		
j. Indirect Charges	\$8,323		
Total Costs	\$534,321	\$400,000	\$134,321
	Cost Share Percentage	74.9%	25.1%

6a. Personnel

This category includes salaries and wages of employees of the applicant organization that will be working directly on the project. Generally, salaries of administrative and/or clerical personnel are classified as indirect or overhead costs in your organization's accounting system included as a portion of the stated indirect costs. If these salaries can be adequately documented as direct costs, they can be included in this section; however, a justification must be included in the narrative. Recommend reviewing **\$ 200.430 Compensation - personal services** for more information on the specific requirements regarding compensation costs, including the **Standards for Documentation of Personnel Expenses at \$200.430(i)**.

Narrative: For key personnel such as the project manager or principal investigator, identify the name individual and position/title. Other personnel should be identified by position only. For all positions, identify the project tasks that will be performed. Compensation rates can be expressed as hourly rates and number of hours or annual salary and percentage effort that will be contributed to each task, but must be consistent with your organization's accounting and timekeeping policies. Include estimated hours for compliance with reporting requirements, including the final project report and evaluation. For multi-year projects, identify the level of effort anticipated for each budget year and any estimates increases in compensation rates. Within the budget narrative, provide a certification that the labor rates included in the budget proposal represent the actual labor rates of the identified personnel/positions and are consistently applied to Federal and non-Federal activities. *Note: The annual/hourly labor rate must not include fringe benefits.*

Links: [\\$ 200.430 Compensation - personal services](#).

Personnel

Position Title	Time (Hrs or %)	Rate (Hr or Salary)	Total Cost	Rate Basis	Comments (as needed)
Project Director (General Manager)	5%	\$190,000	\$9,500	Current Salary	See Ted Trimble below.
Project Manager (Assistant General Manager)	25%	\$95,000	\$23,750	Current Salary	See Anjanette Shadley below.
Total			\$33,250		

Additional Narrative/Comments:

Ted Trimble, General Manager, will be the project director and will provide general oversight of project staff and contractors. Mr. Trimble will execute contracts, approve all reports, and will be responsible to the District's Board of Directors in ensuring the project execution aligns with project and program objectives at the direction of the Board. His annual salary is \$190,000 and it is anticipated that he will spend approximately 5 percent of his time for the duration of the project. The budgeted rates represent the actual labor rates for the identified personnel and are consistently applied to Federal and non-Federal activities.

Anjanette Shadley, Assistant General Manager, will be the project manager and is responsible for the day to day direction of the project, coordinating and directing contractors, leading stakeholder outreach, and ensuring that the project is collaborative and inclusive of stakeholder input. Ms. Shadley is highly skilled in project administration, having joined the District in 2011 as a Special Projects Manager, promoting quickly to Office Manager and then Assistant General Manager in 2015. She holds a bachelor's degree from California State University, Chico in interdisciplinary studies focusing on agricultural policy and a Master of Legal Studies from Pepperdine Caruso Law. Ms. Shadley will benefit this project with her versatile administrative and project management skills. Her annual salary is \$95,000 and it is anticipated that she will spend approximately 25 percent of her time for the duration of the project. The budgeted rates represent the actual labor rates for the identified personnel and are consistently applied to Federal and non-Federal activities.

6b. Fringe Benefits

Fringe benefits are allowances and services provided by employers to their employees as compensation in addition to regular salaries and wages. Fringe benefits include, but are not limited to, the costs of leave (vacation, family-related, sick or military), employee insurance, pensions, and unemployment benefit plans. Fringe costs should also include employer contributions required by law such as payroll taxes such as FICA, unemployment, and workers compensation. Fringe does not include federal income taxes, employee portion FICA, or other such costs. Recommend reviewing **§ 200.431 Compensation - fringe benefits** for more information on the allowability and allocability of fringe benefits. Note: Car allowances and cars furnished to employees for personal and work use are unallowable as a fringe benefit, regardless of whether the costs is reported as taxable income, and must be excluded from fringe benefit rates.

Narrative: Fringe benefits can be expressed as an hourly rate or percentage of personnel costs, but must correspond to how the costs are documented in your organization's accounting system. In the narrative, identify the fringe benefit rates/amounts for each position. If the fringe benefit rate is less than 35% of the estimated employee compensation, no additional information is necessary. If the fringe benefit rate is more than 35%, provide a description and breakdown of the benefits. If the rate is established within a negotiated indirect cost rate agreement (NICRA), provide a copy of the agreement with the application. Do not combine the fringe benefit costs with direct salaries and wages in the personnel category.

Links: [§ 200.431 Compensation - fringe benefits](#)

Fringe Benefits				Total Cost	Comments (as needed)
Position Title	Compensation	Quantity	Total Cost		
Project Director (General Manager)	30%	9,500	\$ 2,850	The district's fringe benefits costs are estimated at 30% of employee compensation costs.	
Project Manager (Assistant General Manager)	30%	23,750	\$ 7,125	The district's fringe benefits costs are estimated at 30% of employee compensation costs.	
Total			\$9,975		

Additional Narrative/Comments:

6f. Contractual

Include all contracts and subawards, (other than those for construction activities) under this Budget Object Class Category. Per § 200.1, *contract* means, for the purpose of Federal financial assistance, a legal instrument by which a recipient or subrecipient purchases property or services needed to carry out the project or program under a Federal award. The term as used in this part does not include a legal instrument, even if the non-Federal entity considers it a contract, when the substance of the transaction meets the definition of a subaward.

For additional information on subrecipient and contractor determinations, see § 200.331 Subrecipient and contractor determinations. Do not include construction contract costs in this subsection. Construction costs should be included in Budget Object Class Category 6g, Construction.

Links: [§ 200.1 Definitions](#)
[§ 200.331 Subrecipient and contractor determinations.](#)

Contracts

For each contract, regardless of dollar value, describe the services to be obtained and the applicability or necessity of each to the project. Identify the total estimated cost and the basis(es) used to develop the estimate. For each contract with an estimated amount meeting or exceeding \$250,000 or represents 35% or more of the total project cost, provide a separate detailed description of the estimated costs. A detailed estimate can be included with the application in lieu of a description. For contracts with an estimated cost equal to or greater than the micro-purchase threshold (currently \$10,000) identify the anticipated procurement method to be used and the basis of selection.

NOTE: Only contracts for architectural/engineering services can be awarded using a qualifications-based procurement method. If a qualifications-based procurement method is used, profit must be negotiated as a separate element of the contract price. See **§200.318 General Procurement Standards** for additional information regarding procurements, including required contract content. The procurement method used must be compliant with **§ 200.319 Competition**, and **§ 200.320 Methods of procurement to be followed**.

Links: [§ 200.318 General procurement standards](#)
[§ 200.319 Competition](#)
[§ 200.320 Methods of procurement to be followed.](#)
[§ 200.459 Professional service costs](#)

Contractor Name	Purpose and Contracting Method	Total Cost	Description of costs	Basis of cost
Dauids Engineering, Inc.	Project design, engineering, and environmental compliance.	\$467,773	Fee for service - engineering and project management	Quote from Dauids Engineering, Inc. based upon actual costs incurred to date and estimate of remaining work.
Morrison	Grant administration and bookkeeping	\$15,000	Fee for service - grant administration	Quote from Morrison
Subtotal		\$482,773		

Additional Narrative/Comments:

Dauids Engineering, Inc.: To effectively plan for the installation of state-of-the-art fully-automated front slide gates, Western Canal Water District will partner with Dauids Engineering, Inc. to complete a comprehensive design-bid-build package. The intent of this project is to effectively plan for the large-scale construction project to ensure timely and efficient completion. The technical aspects of the project will include three main phased deliverables: 1. The completion of 30% design drawings; 2. The completion of 60% design drawings, draft technical specifications, a Basis of Design Report, and project cost estimates; The completion of California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) compliance, and the preparation and submission of permit applications to applicable regulatory agencies. Costs are based upon a quote from Dauids Engineering, which includes actual costs incurred to date since the release of the solicitation (\$206,805 in pre-award costs) and estimate of remaining work \$260,968. Dauids Engineering's cost model is a fee-for-service cost structure based upon an hourly rate of \$228 and assumes total project time of 2,052 hours.

Morrison: To ensure adherence to federal contracting guidelines and provide for timely and accurate grant reimbursements and reporting, Western Canal Water District will engage the services of Morrison, a leading business and accounting advisory consultancy with expertise in federal grant management. Morrison will work closely with District staff and consultants to maintain proper reporting and compliance with grant requirements; interface with Reclamation on reporting and compliance matters; prepare reimbursement requests including collection of invoices and proofs of payment to substantiate and facilitate the invoice reporting process; and assist with completion of required progress reports. Morrison's cost model is a fee-for-service cost structure based upon an hourly rate of \$225 per hour and assumes total project time of approximately 67 hours.

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Subawards

If known, identify the recipient of each subaward. Describe the activities to be performed under each subaward and indicate the applicability or necessity of each to the project. Provide a separate detailed budget for each subaward, regardless of dollar value. A detailed estimate may be included with the application in lieu of a description of budgeted costs. Identify who prepared the estimate (subrecipient, applicant, personnel, etc.) and indicate the basis used to estimate each cost. Include any indirect/overhead costs anticipated to be paid and the rate used. If the subrecipient has a Federal negotiated indirect cost rate agreement (NICRA), include a copy of the NICRA with the application.

Subrecipient Name	Description of Activities	Total Cost	Description of budgeted costs	Basis of Cost
		\$0		
		\$0		
	Subtotal	\$0		

Additional Narrative/Comments:

TOTAL CONTRACTUAL	\$482,773

6 j. Indirect Costs

Option 1: Show the rate reflected in the most recent Federal indirect cost rate agreement, cost base, and proposed amount for allowable indirect costs. If your organization has a current Federal negotiated indirect cost rate agreement, it must be included with your application.

Option 2: If your organization has never received a Federal negotiated indirect cost rate, the budget may include a 10 % de minimis rate of modified total direct costs. Per **§ 200.1 Definitions**, Modified Total Direct Cost (MTDC) means *all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel, and up to the first \$25,000 of each subaward (regardless of the period of performance of the subawards under the award). MTDC excludes equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs and the portion of each subaward in excess of \$25,000.* For further information on modified total direct costs, refer to **§ 200.414 Indirect (F&A) costs**.

Option 3: If your organization does not have a federally approved indirect cost rate agreement and is proposing a rate greater than the 10 % de minimis rate, include the computational basis for the indirect expense pool and corresponding allocation base for each rate. *Note: If this option is selected, you will be required to submit an indirect cost rate proposal to your cognizant Federal agency within 3 months after the date the award is issued.* Information on “Preparing and Submitting Indirect Cost Proposals” is available from Interior, the National Business Center, and Indirect Costs and Acquisition Audit Services at <https://ibc.doi.gov/ICS/icrna>.

Note: Construction costs are capital expenditures and must be excluded from the indirect cost base.

Links: [§ 200.1 Definitions](#)
[§ 200.414 Indirect \(F&A\) costs.](#)
<https://ibc.doi.gov/ICS/icrna>

j. Indirect Costs					
Rate Type	Current Federal NICRA	Base Description	Base Total	Rate	Total Cost
De minimus	No	Personnel (\$33,250), Fringe (\$9,975), and the first \$25,000 of each subaward (\$25,000 for Davids Engineering; \$15,000 for Morrison).	\$83,225	10.00%	\$8,323
				Total	\$8,323
					Estimated amount of indirect costs to be paid with Federal funds
					\$0
					Estimated amount of indirect costs to be paid with non-Federal funds
					\$8,323

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APPENDIX C: PERMITS OR APPROVALS

This Project Design Grant proposal includes the assessment, preparation, and submission of environmental compliance and permitting requirements, including the following:

- California Environmental Quality Act (CEQA) Initial Study (IS) and Mitigated Negative Declaration (MND) statement;
- Cultural Resources Documentation in support of project compliance with Section 106 of the National Historic Preservation Act;
- US Army Corps of Engineers (USACE) Section 404 Nationwide Permit (NWP);
- Regional Water Quality Control Board Clean Water Act (CWA) Section 401;
- California Department of Fish and Wildlife (CDFW) Streambed Alteration Agreement – Section 1600;
- CDFW Consistency Determination
- USACE/Central Valley Flood Protection Board (CVFPB) encroachment permit and Section 408 permit

Davids Engineering will lead the project's permitting and approval process following its well-established project management system in close coordination with the District, stakeholders, and permitting agencies, as outlined in the Project Work Plan presented in *Section 4c. Ability to Meet Program Requirements* of the accompanying Project Design Grant application. ▀