Application Submitted to the United States Bureau of Reclamation for a
WaterSMART Grants: Water and Energy Efficiency Grants
for Fiscal Year (FY) 2024 and FY 2025
Funding Opportunity No. R24AS00521

PREPARED FOR:
Fresno Irrigation District
2907 S. Maple Avenue
Fresno, CA 93725

TABLE OF CONTENTS

List of Figures

List of Tables

Appendices

Abbreviations

ACIP ..... ACIP Energy LLC
AF ..... Acre Feet
CEQA ..... California Environmental Quality Act
CO_2 ..... Carbon Dioxide
DAC ..... Disadvantaged Community
DC ..... Direct Current
DOI ..... Department of the Interior
EOPCC ..... Engineer's Opinion of Probably Construction Cost
EQIP ..... Environmental Quality Incentives Program
ESA ..... Endangered Species Act
FID ..... Fresno Irrigation District
GHG ..... Green House Gas
kW ..... Kilowatt
kWH ..... Kilowatt per Hour
NEPA ..... National Environmental Policy Act
NOFO ..... Notice of Funding Opportunity
NO_x ..... Nitrogen Oxides
SCADA ..... Supervisory Control and Data Acquisition
So_x ..... Sulfur Oxides
USBR ..... United States Bureau of Reclamation

1 TECHNICAL PROPOSAL

(A) EXECUTIVE SUMMARY

GENERAL PROJECT INFORMATION

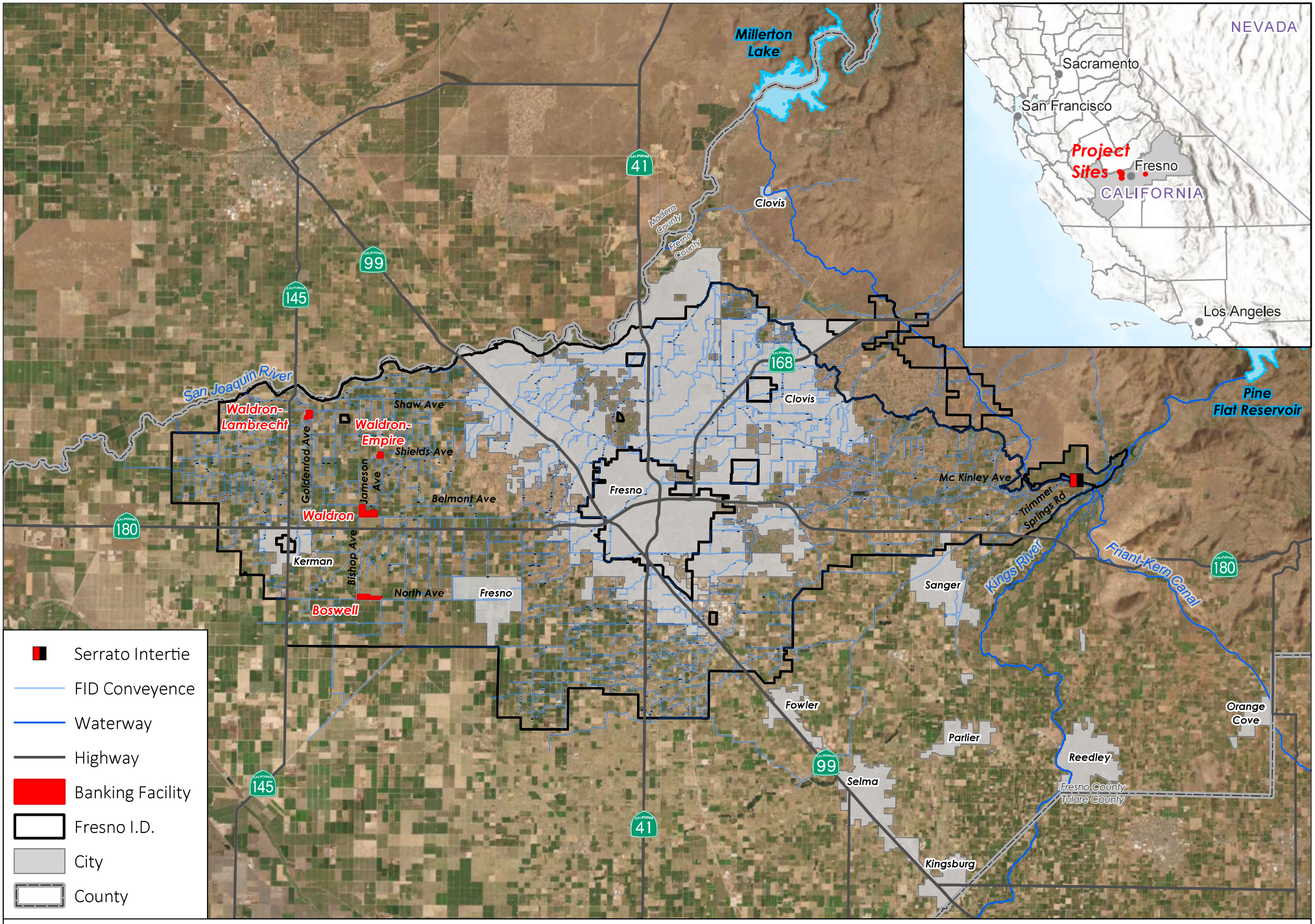
Proposal Name: Solar and Water Energy Efficiency Project
Applicant Name: Fresno Irrigation District
City, County, and State: Fresno, Fresno County, California

The Fresno Irrigation District (FID or District), organized in 1920, is a Category A applicant and provides agricultural water to a 247,000-acre area in Fresno County, California. FID aims to protect and manage the surface and ground water resources of the region to meet the present and future needs of the District. The Solar and Water Energy Efficiency Project (Project) proposes to construct solar panels at five existing basin and pumping facilities to provide renewable energy, reduce FID's overall operational costs and provide pumping flexibility including increasing FID's ability to use its pumping facilities to provide extended delivery of water supply when needed.

The project will not include any modification to facilities. There are no project partners, and the project is not a phase in a larger overall project. Preliminary design has already started, and the project can be completed by April 2026 well within the three-year required term of the year 2027. The total project cost is estimated at $8,208,845 with a requested grant of $4,104,000.

(B) PROJECT LOCATION

The Project sites are located within Fresno County, California. **Figure 1** is the vicinity map and **Figure 2** shows the five sites and DAC area. Refer to **Appendix A** for an aerial photograph and detailed map of each of the project locations that is included in a report for the project.

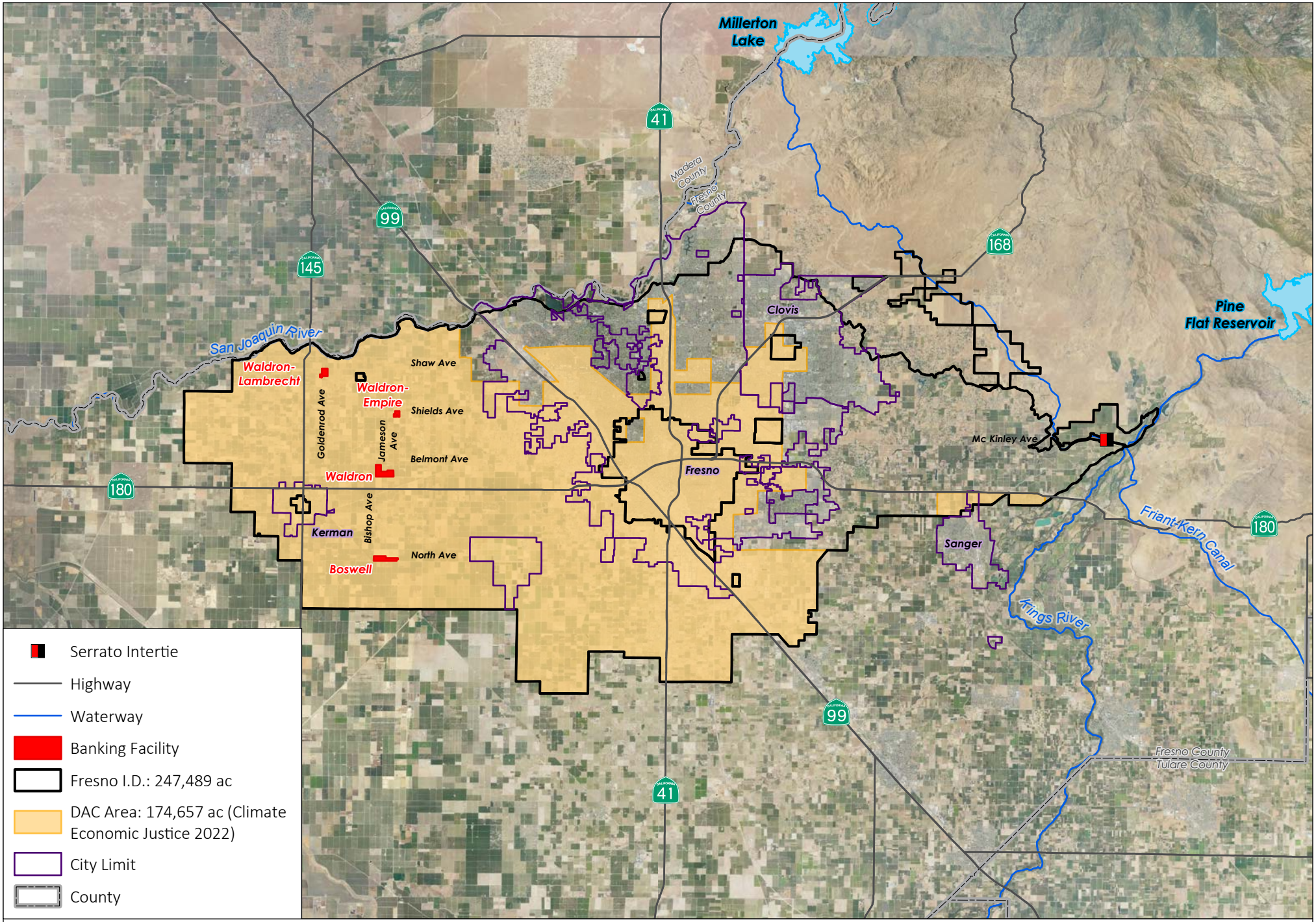


Fresno Irrigation District

WEEG Solar Grant - Vicinity Map

PROVOST& PRITCHARD

2/21/2024 G:\Fresno ID - 1038\103824002-WEEG Solar\400 GIS\Map\FresnoID_WEEG_Solar\FresnoID_WEEG_Solar.aprx



Fresno Irrigation District

WEEG Solar Grant - Disadvantaged Communities Within Fresno Irrigation District Map

PROVOST& PRITCHARD

2/21/2024 G:\Fresno ID - 1038\103824002-WEEG Solar\400 GIS\Map\FresnoID_WEEG_Solar\FresnoID_WEEG_Solar.aprx

(C) PROJECT DESCRIPTION

The Project will consist of installation of solar panels at five District facilities, connection to existing pumping equipment as well as to PG&E's electrical system to provide benefits to water and energy efficiency. The total Project size will be approximately seven acres. Four of the sites are recharge basins which include recovery wells for the District to pump out recharged water during dry years for delivery to downstream customers. The fifth site is a lift pump station that is utilized for transferring water between canals. The proposed solar sites and impact sizes are described below.

1. Waldron-Lambrecht – Solar panels installation will cover approximately 1.45 acres.
2. Waldron – Empire - Solar panels installation will cover approximately .45 acres.
3. Waldron-Waldron – Solar panel installation will cover approximately 1.87 acres.
4. Boswell – Solar panels installation will cover approximately 1.87 acres.
5. Serrato Intertie –Solar panels installation will cover approximately .91 acres.

Construction will involve site preparation, solar panel installation, and connection to the electrical system. Site preparation will include clearing and grading activities with equipment such as bulldozers, excavators, and compactors. The solar panels will be installed by pouring the concrete footings, installing the support poles, and mounting the panels. The arrays will then be connected to existing electrical service on site and PG&E meters. A map of the existing sites and meter locations is also included in **Appendix B.**

(D) EVALUATION CRITERIA

The following performance measures will be used to evaluate the Project.

- Quantifiable Water Savings
- Renewable Energy
- Other Project Benefits
- Disadvantaged Communities and Tribal Benefits
- Complementing On-Farm Irrigation Improvements
- Readiness to Proceed
- Collaboration
- Nexus to Reclamation

EVALUATION CRITERION A – QUANTIFIABLE WATER SAVINGS

Describe the amount of estimated water savings. For projects that conserve water, please state the estimated amount of water expected to be conserved (in acre-feet per year) as a direct result of this project.

The basin sites have recharged an average of 17,000 acre-feet per year since their construction, helping to recharge the aquifer. The District captures flood and storm water that typically leave the region, diverts that water into the basins and then later recovers the water using recovery wells at the basin sites to provide long term resilience

to drought. The basin sites have recovered an average of approximately 5,000 acre-feet per year using multiple wells at the site. This solar project will allow FID to conserve and recover additional water supply due to the reduced energy cost to run the recovery wells. It is conservatively estimated that the recovery wells will be operated to pump an additional 1,000 acre-feet per year.

Describe current losses. Please explain where the water that will be conserved is currently going and how it is being used. Consider the following:
Explain where current losses are going (e.g., back to the stream, spilled at the end of the ditch, seeping into the ground)?
The benefit of the project will be additional recovery of recharged water from extended use and lower energy costs to operate recovery wells. The recharged water is water that would otherwise be lost to the region but is captured and diverted to the groundwater recharge basins. Extending the operation of recovery wells will conserve water for the region by putting it to direct use for irrigation when it is recovered and delivered to growers for irrigation.

If known, please explain how current losses are being used. For example, are current losses returning to the system for use by others? Are current losses entering an impaired groundwater table becoming unsuitable for future use?
Water at the basins recharges the aquifer, but only a portion of that is recovered by the District. The project will reduce operational costs of the recovery wells allowing for additional water to be recovered and delivered to growers for irrigation.

Are there any known benefits associated with where the current losses are going? For example, is seepage water providing additional habitat for fish or animal species?
The reduced operational cost will allow the District to perform additional operation of the recovery wells and encourage continued recharge at the basins because a greater percentage of recharged water can be recovered.

Describe the support/documentation of estimated water savings. Please provide sufficient detail supporting how the estimate was determined, including all supporting calculations.
It is conservatively estimated that the recovery wells will be operated to pump an additional 1,000 acre-feet per year. The table below shows the total volume of water pumped by the recovery wells at the four primary sites during the 2021-22 water year. The recovery wells 2021-22 year shows a typical year of operation of the recovery. The table shows an average per month pumping of about 3,000 acre-feet. The total volume may actually be greater, but for purposes of estimating water savings there is a desire to be conservative so assuming the additional recovery occurs once every 3 years, so about 1,000 acre-feet. The solar investment will reduce the overall operational costs, allowing the District to extend operation of the recovery wells.

Table 1 – Site Capacity

2021-2022 FID Recovery Well Operations					
Month	Waldron Recovery (AF)	Lambrecht Recovery (AF)	Empire Recovery (AF)	Boswell Recovery (AF)	Total
October					
November					
December					
January					
February					
March					
April					
May					
June	1,086	764	226	1,226	3,302
July	983	525	435	1,261	3,204
August	1,009	518	340	884	2,751
September					
Totals	3,078	1,807	1,001	3,371	9,257
Average per month	**1,026**	**602**	**334**	**1,124**	**3,086**

Please address the following questions according to the type of infrastructure improvement you are proposing for funding. See Appendix A: Benefit Quantification and Performance Measure Guidance for additional guidance on quantifying water savings.

To quantify the additional water recovered, the use of the recovery wells after completion of the solar project installation will be compared to operation of the recovery wells prior to solar installation. Each of the wells is metered, and the District maintains records of historic operation of the wells, so a comparison of the extended operation can easily be made.

EVALUATION CRITERION B – RENEWABLE ENERGY

Describe the amount of energy capacity. For projects that implement renewable energy systems, state the estimated amount of capacity (in kilowatts) of the system. Please provide sufficient detail supporting the stated estimate, including all calculations in support of the estimate.

The Project will install solar arrays within the five sites. The estimated energy capacity of the proposed system totals 3,309 kW. The capacity at each site is shown in the table below:

Table 2 – DC System Size

Site	Capacity
Waldron-Lambrecht	690kW
Waldron – Empire	276kW
Waldron – Waldron	950kW
Boswell	1,054kW
Serrato	339kW
Total	**3,309kW**

Estimated energy capacity was completed using the Ongrid program[1]. The program estimates the energy production and cost of grid-connected photovoltaic energy systems by factoring in location, tilt, angle, product, soiling, line loss, etc. to calculate the estimated production for the system. The system also determined the proper size system required for each site for the Project.

FID used the program to determine that approximately 5,092 solar panels would be installed and yield a DC system size that produces 3,3,09 kW.

Describe the amount of energy generated. For projects that implement renewable energy systems, state the estimated amount of energy that the system will generate (in kilowatt hours per year). Please provide sufficient detail supporting the stated estimate, including all calculations in support of the estimate. Please explain how the power generated as a result of this project will be used, including any existing or planned agreements and infrastructure.

Estimated energy production was completed using the Ongrid program. The system also determined the proper size system required for each site for the Project. Based on the program approximately 5,287,848 kWh from all sites will be generated to assist FID with improved water and energy efficiency. Expected energy generated per site are listed below:

- Waldron-Lambrecht – 1,101,652 kWh
- Waldron-Empire – 439,672 kWh
- Waldron-Waldron – 1,516,587 kWh
- Boswell – 1,682,561 kWh
- Serrato – 547,376 kWh

The energy generated because of the Project will be used to:

- Reduce the District overall operational costs,
- Provide pumping operational flexibility, and
- Increase the ability to use pumping facilities to provide extended delivery of water supplies when needed.

[1] https://pvwatts.nrel.gov/

Describe the status of a mothballed hydropower plant. For projects that are bringing mothballed hydropower capacity back online, please describe the following:

This does not apply to the Project.

Describe any other benefits of the renewable energy project. Please describe and provide sufficient detail on any additional benefits expected to result from the renewable energy project, including:

How the system will combat/offset the impacts of climate change, including an expected reduction in greenhouse gas emissions.

The Project will offset/combat the impacts of climate change by providing a clean, renewable source of energy. The life span of solar panels is estimated to be 25 years. Each site was analyzed for environmental attributes and estimated offset criteria quantities were generated. A table is provided below for a summary of total estimated offsets.

Table 3 – Environmental Attributes – Estimated Emissions Offsets in lbs.

Site	CO_2	NO_x	SO_x	Particles that cause asthma
Waldron-Lambrecht	43,204072	138,643	125,506	8,538
Waldron – Empire	17,242,866	53,333	50,090	3,407
Waldron – Waldron	59,476,793	190,862	172,777	11,754
Boswell	65,985,881	211,750	191,686	13,040
Serrato	21,466,725	68,887	62,360	4,242
Total	**207,376,337**	**663,475**	**602,419**	**40,981**

Expected environmental benefits of the renewable energy system.

Environmental benefits of the Project include:

- Reduction in GHG emissions,
- Cleaner air quality,
- Production of shade habitat for wildlife.
- Help sustaining the overall groundwater supply.

Any expected reduction in the use of energy currently supplied through a Reclamation project.

The project sites receive power locally from PG&E. The addition of solar will reduce overall demand from PG&E facilities and energy supply sources.

Anticipated benefits to other sectors/entities.

The project will also:

- Allow for more on demand delivery to meet growers' demands.

- Reduce overall energy use caused by providing increased operation of FID recovery wells for delivery to multiple downstream users, compared to inefficient and de-centralized pumping of groundwater by multiple landowners.
- Continue to encourage increased recharge of water at basins sites by having the ability to recover more supply from the aquifer.
- Maintenance of waterfowl, upland, wetland, and aquatic habitat.
- Provide resting, roosting, nesting, drinking, and foraging habitat for waterfowl, shorebirds, resident and migratory birds and a variety of other wildlife
- Waterfowl habitat for bird species on the Pacific flyway
- Water supply for terrestrial wildlife

Expected water needs, if any, of the system.
The solar panels will require annual or semiannual cleaning with water. Panels will be sprayed and washed with water. FID will use water from onsite supplies. Approximately 5,092 panels will be installed as part of this project and will require approximately .81-acre feet of water per year for normal operation and maintenance. Excess water from panel washing would have the opportunity to infiltrate the ground.

The amount needed per year was determined using information from Solar Energy Industries Association which assume 20 gallons per megawatt hour[2].

SUBCRITERION B.2 – INCREASING ENGERY EFFICENCY IN WATER MANAGEMENT

Describe any energy efficiencies that are expected to result from implementation of the water conservation or water efficiency project (e.g., reduced pumping).

The project will reduce individual pumping by growers downstream of the project. Growers that pump downstream predominantly use PG&E electrical power for their well operation. The installation of solar will allow FID to operate its recovery wells longer and deliver water through its canal and pipeline facilities with a clean source of energy.

If quantifiable energy savings is expected to result from the project, please provide sufficient details and supporting calculations. If quantifying energy savings, please state the estimated amount in kilowatt hours per year.
The Project is expected to generate 5,287,848 kWh of renewable energy. Refer to section Criterion B-Renewable Energy to see the site breakdown.

How will the energy efficiency improvement combat/offset the impacts of climate change, including an expected reduction in greenhouse gas emissions.
The Project will offset climate change by reducing GHG emissions by 206,683,212 lbs. over the course of 25 years. Refer to Table 3 of expected offset per specific compound over the course of the Project.

In addition, the Project is equivalent to removing 1094 cars from the road or planting 1774 acres of trees.

[2] (SEIA , 2024)

If the project will result in reduced pumping, please describe the current pumping requirements and the types of pumps (e.g., size) currently being used. How would the proposed project impact the current pumping requirements and energy usage?
Current pumping requirements and types of pumps by site are listed in **Appendix B.**

The Project aims to increase water and energy efficiency when the demand for pumping water is high, which is shown in Table 1. The District currently uses approximately 3471,000 kWh of energy to meet the demand for pumping. Based on the report from ACIP (**Appendix A)** it is estimated that the pumps will use 4,628,000 kWh of energy. The project will generate approximately 5,287,848 kWh of energy which will provide sufficient energy to cover the pumping needs for FID.

Please indicate whether your energy savings estimate originates from the point of diversion, or whether the estimate is based upon an alternate site of origin.
Energy savings will occur at the five project sites, the point of use.

Does the calculation include any energy required to treat the water, if applicable?
No water treatment is associated with this project.

Will the project result in reduced vehicle miles driven, in turn reducing greenhouse gas emissions? Please provide supporting details and calculations.
The Project is expected to offset the equivalent of 337,421,984 miles driven in the average car or take off 1094 cars off the road for 25 years.

Describe any renewable energy components that will result in minimal energy savings/production (e.g., installing small-scale solar as part of a SCADA system).
All renewable energy components have been described above.

EVALUATION CRITERIA C- OTHER PROJECT BENEFITS

Resilience and Sustainability Benefits

Explain and provide detail of the specific issue(s) in the area that is impacting water resilience and sustainability. Consider the following:

Describe recent, existing, or potential drought or water scarcity conditions in the project area.
Although this past year was a historic wet year, it followed a three-year drought period of 2020-2022, which followed the historically worst drought of 2012-2016. The District has experienced numerous droughts over the past 22 years according to the US Drought Monitor (https://droughtmonitor.unl.edu). **Figure 3** shows the Drought Severity and Coverage Index for the Fresno, California Area for the past 22 years. This index ranges from 0 to 500. Zero means that none of the area is abnormally dry or in drought, and 500 means that all of the area is in an exceptional drought. **Figure 3** shows that the area experienced some form of drought the majority of the time since 2000.

Drought conditions in California as of May 24, 2022, are shown below in **Figure 4**. According to this figure, 98% of California is currently experiencing a “Severe”, “Extreme” or “Exceptional” drought. The project sites are located within an area of “Extreme Drought”.

Figure 5 shows the groundwater level decline throughout FID versus surface water diversions. **Figure 6** shows Kings River runoff since 1895, including a trending decline, possibly due to climate change, change in watershed conditions, or some other factor outside of FID’s control.

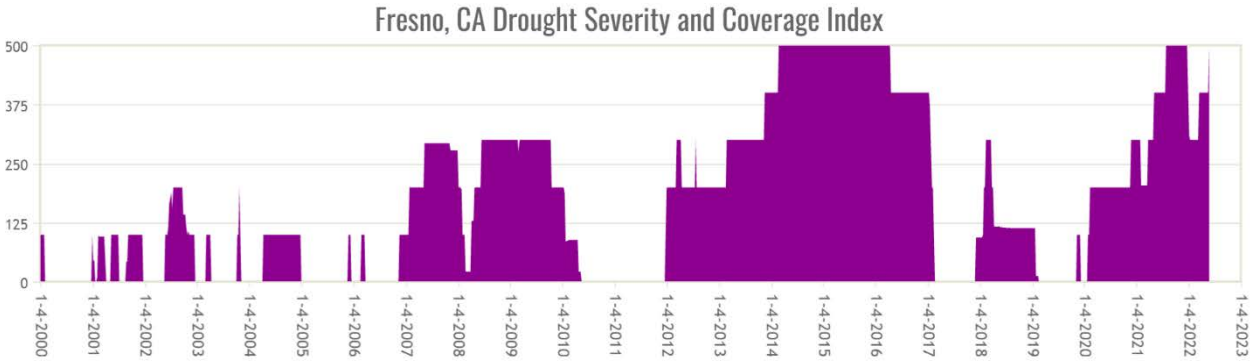


Figure 3 – Drought Severity and Coverage Index for Fresno, California Area

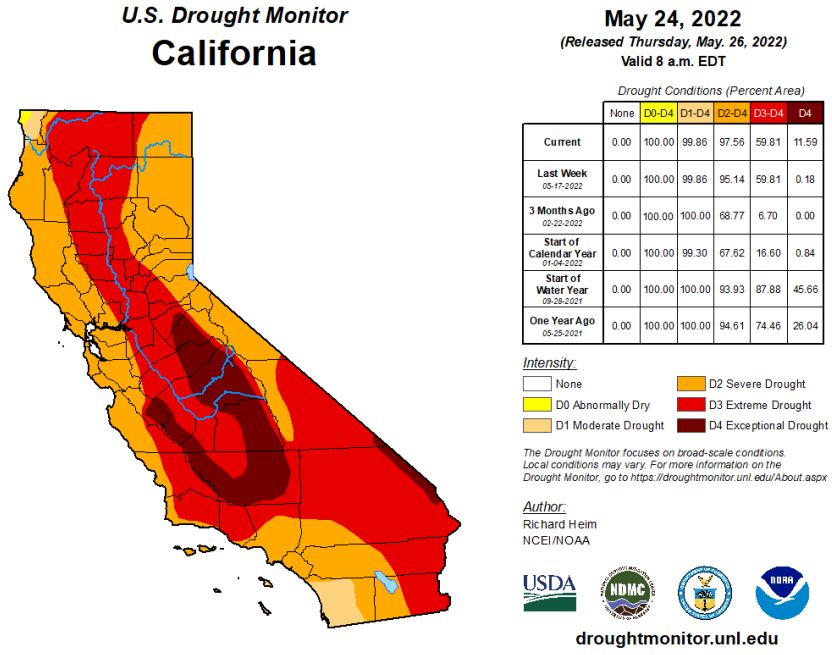
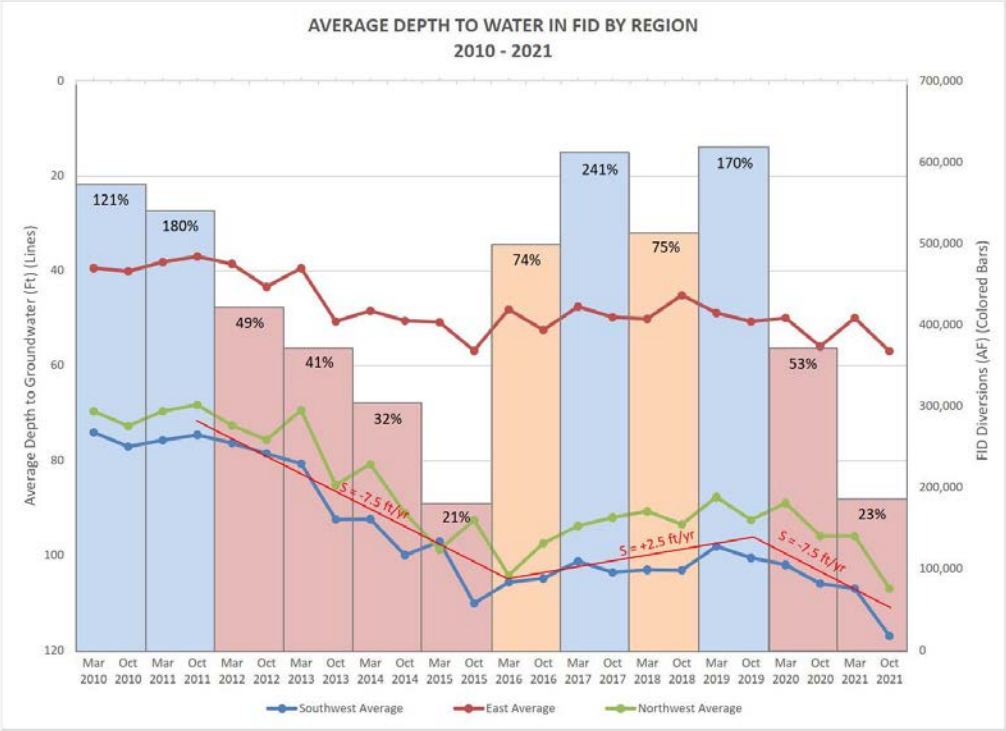


Figure 4 – U.S Drought Monitor Report (May 24, 2022)



Notes: FID Diversions are for calendar year (January - December). Percentages shown are Kings River water year runoff percent of normal.
G:\Reports\FID\Groundwater\Depth to GW\Depth to Groundwater Report

Figure 5 – Groundwater Depth vs Surface Water Diversions

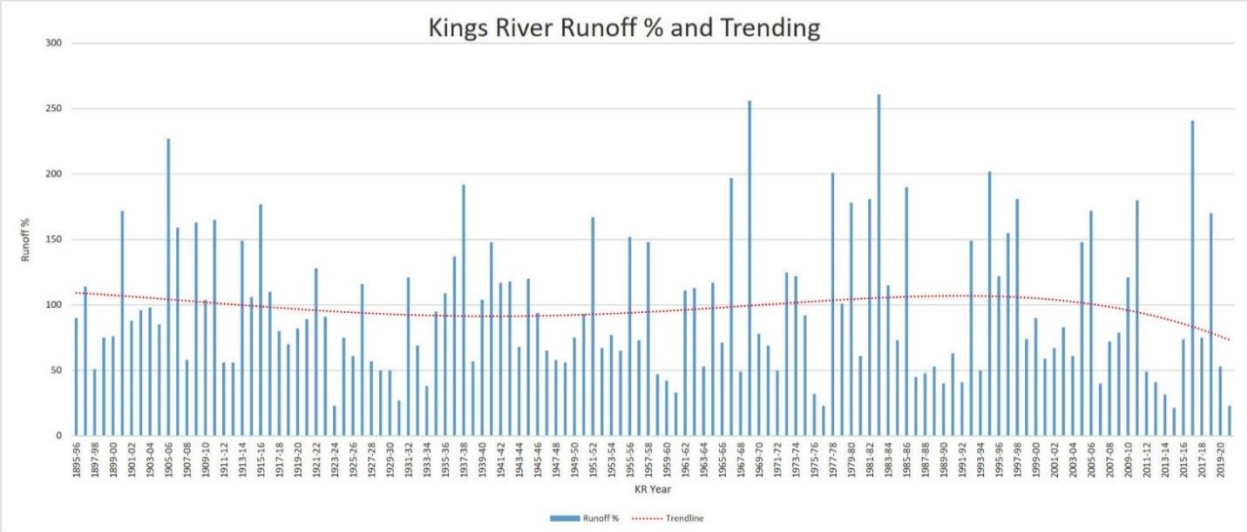


Figure 6 – Kings River Runoff (1895-2022)

Describe any projected increases to the severity or duration of drought or water scarcity in the project area. Provide support for your response (e.g., reference a recent climate informed analysis, if available).

The 2022 North Kings Groundwater Sustainability Plan (Section 3.3.10) included an analysis of future water budgets, including the impacts of climate change by 2030 and 2070. The analysis predicted increases in evapotranspiration of 3% by 2030 and 8% by 2070. The analysis predicted only minor changes in precipitation or river flow, but also predicted '*a major shift in timing*' of precipitation. The report concluded that '*Maintaining the same level of water supply*' would require '*increased recharge during non-irrigation and low-irrigation periods*.'

Please describe how the project will directly address the concern(s) stated above.

Will the project directly result in more efficient management of the water supply? For example, will the project provide greater flexibility to water managers, resulting in a more efficient use of water supplies?
The project will reduce individual pumping by growers downstream of the project because the solar project will allow FID to operate its recovery wells longer and deliver water through its canal and pipeline facilities, thereby reducing the individual pumping that downstream growers need to do. Being able to operate the wells longer and deliver the critical supplies of water will result in a greater flexibility for FID to ensure a more efficient and beneficial use of the water supplies.

Please address where any conserved water as a result of the project will go and how it will be used, including whether the conserved water will be used to offset groundwater pumping, used to reduce diversions, used to address shortages that impact diversions or reduce deliveries, made available for transfer, left in the river system, or used to meet another intended use.
The solar investment will reduce the overall operational costs, allowing the District to extend operation of the recovery wells for a period equivalent to the cost savings the solar provides. The Project will reduce pumping by growers downstream of the project which will allow FID to operate its recovery wells longer and deliver water through its canal and pipeline facilities.

Indicate the quantity of conserved water that will be used for the intended purpose(s).
It is conservatively estimated that the recovery wells will be operated to pump an additional 20%, or 1,000 acre-feet per year. The 1000 acre-feet of water will be used to extend the operation of recovery wells by FID which will lead to greater management of both water and energy efficiency.

Provide a description of the mechanism that will be used, if necessary, to put the conserved water to the intended use.
Recovery wells will be the mechanism used.

ECOLOGICAL BENEFITS

Ecological Benefits. In addition to the separate WaterSMART Environmental Water Resources Projects NOFO, this NOFO places a priority on projects that

result in ecological benefits, through this section and other sections above, consistent with the SECURE Water Act.
Please provide information regarding how the project will provide ecosystem benefits, including the following:

Will the project benefit species (e.g., federally threatened, or endangered, a federally recognized candidate species, a state listed species, or a species of particular recreational, or economic importance)? Please describe the relationship of the species to the water supply, and whether the species is adversely affected by a Reclamation project or is subject to a recovery plan or conservation plan under the Endangered Species Act (ESA).
The Project would not directly benefit species. However, the project sites will continue to help provide habitat for waterfowl, shorebirds, resident, and migratory birds along with a variety of other wildlife. The basins provide resting, roosting, nesting, and drinking habitats for waterfowl species on the Pacific flyway, and supply drinking water for terrestrial wildlife.

Will water remain in the system for longer periods of time? If so, provide details on current/future durations and any expected resulting benefits (e.g., maintaining water temperatures or water levels, recreational benefits, etc.).
Having the solar project will allow for additional recovery of recharged water by the District, thereby extending the delivery season of irrigation water to growers. The recovered water is put directly into FID's conveyance facilities for downstream delivery. It has conservatively estimated that on average, an additional month of recovery well operation will be allowed by the solar project. This may extend the delivery season for that additional month. In addition, being able to recover more water will encourage increased operation of the recharge basins to maximize recharged water. At a minimum, the water savings will encourage the District to work to recharge the same amount of additional water recovered, which has been conservatively estimated at 1,000-acre feet per year.

Will the proposed project reduce the likelihood of a species listing or otherwise improve the species status?
No, the Project is not expected to reduce the likelihood of species listing.

Please describe any other ecosystem benefits as a direct result of the project.
Solar panels typically have a lifetime of 25 years. By offsetting GHG and reducing the amount of air pollution, the Project will be beneficial to both wildlife and the human population.

CLIMATE CHANGE

Climate Change: E.O. 14008 emphasizes the need to prioritize and take robust actions to reduce climate pollution; increase resilience to the impacts of climate change; protect public health and conserve our lands, waters, oceans, and biodiversity.

Describe how the project addresses climate change and increases resiliency. For example, does the project help communities adapt to bolster drought resilience?

The Project addresses climate change by providing a clean source of energy to supply water in times of need. It would allow the District to increase the ability to use pumping facilities to provide extended delivery of water supplies when needed, like in times of drought. The solar power will be used to operate existing recovery wells at groundwater banking facilities, as well as a pump station. The District has developed groundwater banking facilities as a direct effort to help address the impacts of climate change and help the region including Disadvantaged Communities adapt and improve drought resilience. The recharge basins capture water as hydrologic conditions change causing changing runoff conditions or increased storm and flood water. While recharging the water into the aquifer is beneficial, the District's recovery wells allow for recovery of recharged water for direct delivery to downstream growers. The operation of the recovery wells provides drought resiliency, and the solar project proposed with this application will allow and encourage increased use of the wells to maximize recovery and use of the recharged water by the District.

Does the project seek to improve ecological resiliency to climate change?

The project seeks to improve ecological resiliency by improving overall water supply resiliency within the area. The project will provide a clean source of energy FID that will offset 1094 cars on the road which is also the equivalent of planting 1774 acres of trees.

Does the proposed project seek to reduce or mitigate climate pollutions such as air or water pollution?

The Project will directly reduce the amount of GHG and air pollution that is released from the critical pumping by FID. This reduction will help FID contribute to the protection of the climate and air quality within the community.

Does the proposed project include green or sustainable infrastructure to improve community climate resilience?

Solar panels are considered both green and sustainable infrastructure.

Does the proposed project contribute to climate change resiliency in other ways not described above?

The project will increase water and energy efficiency which will improve water reliability for agriculture as well as the Disadvantaged Communities in the area. The project will help keep lands within FID in agricultural production, which will continue to sequester carbon in the soils.

EVALUATION CRITERIA

Project site locations that were identified as disadvantaged communties using the Climate and Economic Justice Screening Tool (https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5) are shown in

Figure 7 thru **Figure 10** where the solar arrays will be installed. The Screening Tool identifies all of these areas as disadvantaged including in the area of energy.

Specifically Energy Cost, PM2.5 in the Air, and Low Income. This project will directly address this issue by helping reduce energy use costs for the District and the downstream growers that will benefit from the recovered water being delivered.

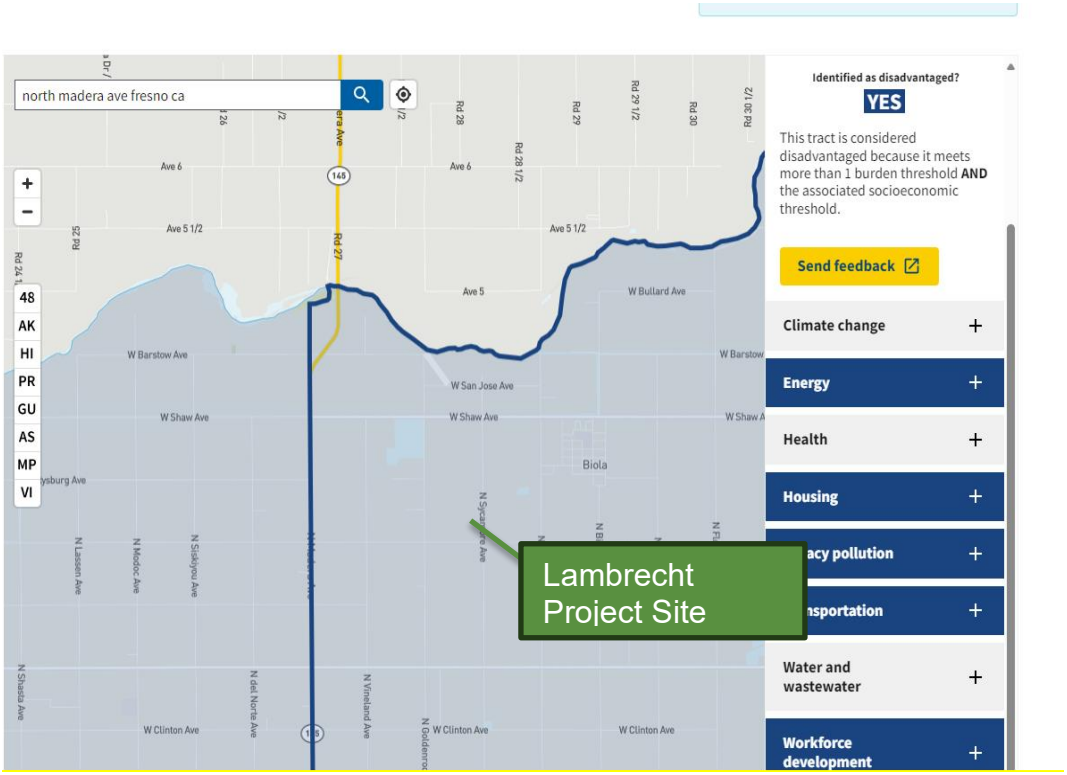


Figure 7 – Lambrecht Project Site

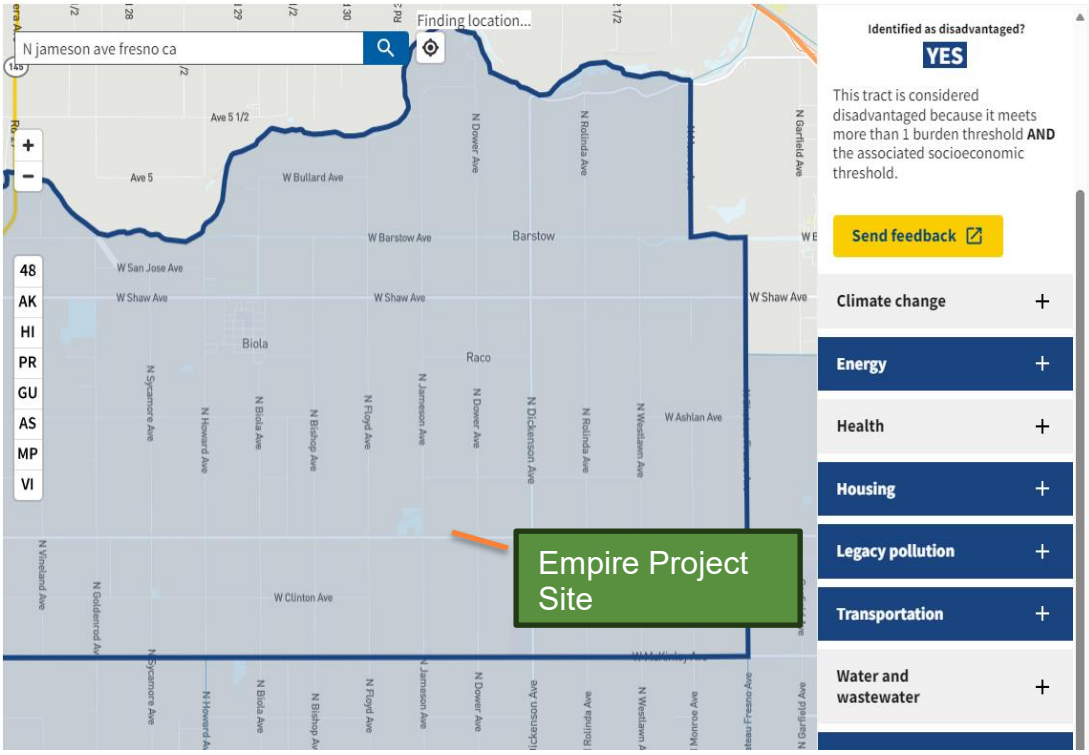


Figure 8 – Empire Project Site

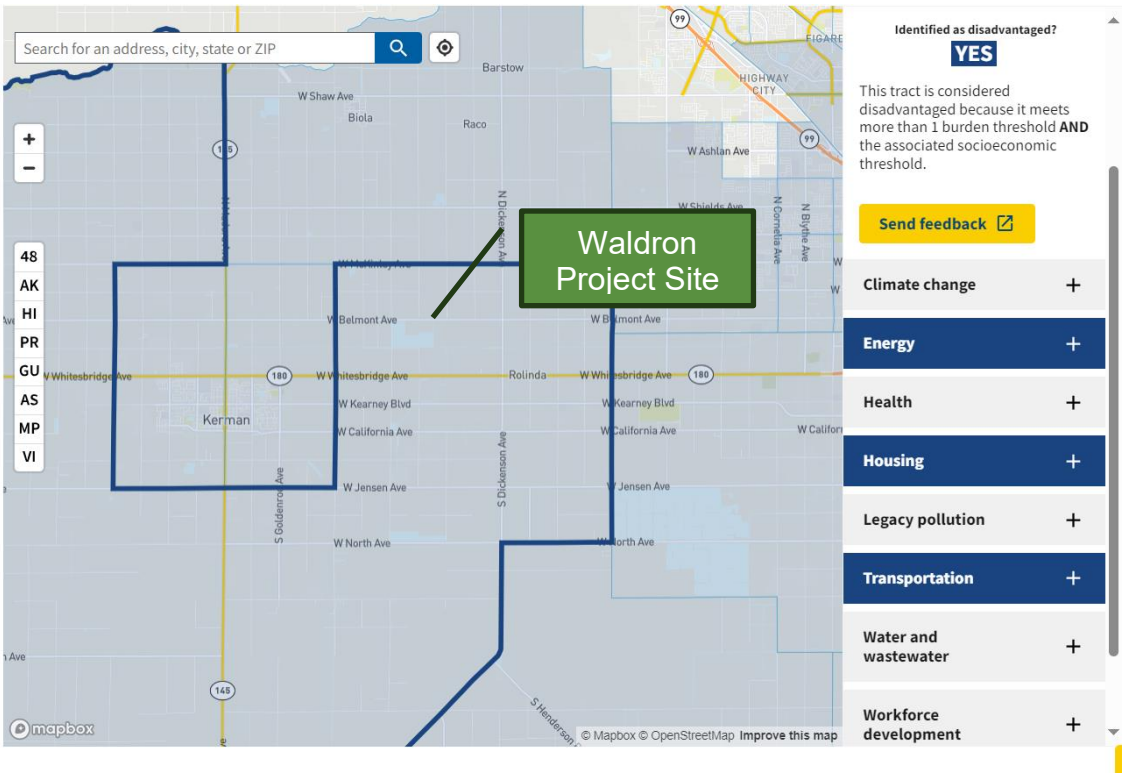


Figure 9 – Waldron Project Site

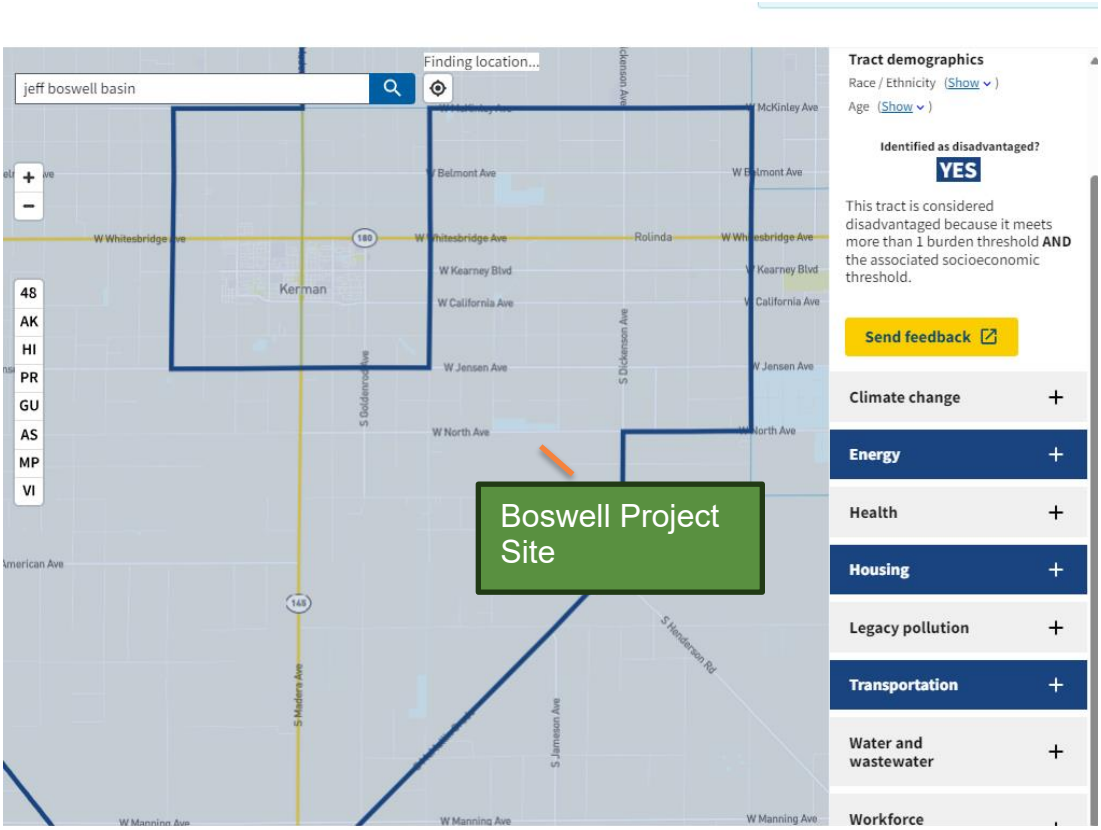


Figure 10 – Boswell Project Site

The project is also located within US Census areas that are considered disadvantaged based on a California Department of Water Resources Statewide dataset. These are areas that have a Mean Household Income (MHI) 80% or less of the State-wide MHI. Therefore, this area also meets the criteria of Section 1015 of the Cooperative Watershed Act, which considers communities disadvantaged if they have less than 100% or the Statewide MHI.

Insular Areas – The Project is not in Insular area.

Tribal Benefits - The Project will not have a benefit to tribes.

EVALUATION CRITERION E – COMPLEMENTATION ON-FARM IMPROVEMENTS

If the proposed project will complement an on-farm improvement eligible for NRCS assistance, please address the following:

Describe any planned or ongoing projects by farmers/ranchers that receive water from the applicant to improve on-farm efficiencies.

The Fresno Irrigation District is one of four agencies in Fresno and Madera counties selected to receive funding for its growers through the EQIP WaterSMART Initiative. This program partners funds from the Bureau of Reclamation's WaterSMART funding pool for conservation planning and improvement with the well-established EQIP program run by the USDA's Natural Resources Conservation Service. Funding is intended to improve water conservation and irrigation water use efficiency on eligible

farms within FID's boundaries through farm-scale projects. FID has announced the program on its website (https://www.fresnoirrigation.com/grants), through its social media, and conducted an informational webinar.

Provide a detailed description of the on-farm efficiency improvements.

The program was just initiated by FID with initial applications from growers due on February 16, 2024, so no projects have been initiated under the program. Funding opportunities under the program include:

- Micro irrigation system
- Irrigation ditch lining
- Irrigation pipeline
- Irrigation reservoir
- Irrigation water management
- Mulching
- Cover crop
- Reduced tillage or no-till
- Well decommissioning
- Windbreaks and hedgerows

Have the farmers requested technical or financial assistance from NRCS for the on-farm efficiency projects, or do they plan to in the future?

The program has just been initiated by FID in coordination with NRCS, but applications are anticipated for funding assistance as well as presumably some technical assistance.

If available, provide documentation that the on-farm projects are eligible for NRCS assistance, that such assistance has or will be requested, and the number or percentage of farms that plan to participate in available NRCS programs.

Through this EQIP-WaterSMART initiative, a wide range of eligible projects are eligible for assistance. The amount of interest in the program has not yet been identified since applications are due about the same time as this application. FID has promoted the program and anticipates interest from growers within the District. A percentage of growers interested can be determined after applications have been received and considered.

Applicants should provide letters of intent from farmers/ranchers in the affected project areas.

A listing of support letters for this Water and Energy Efficiency Grant application is included within this application.

Describe how the proposed WaterSMART project would complement any ongoing or planned on-farm improvement.

The project will completement planned on-farm improvements by helping FID operations extend delivery operations of surface water using the additional recovered water and conveying that water within FID's canals and pipelines. FID has been encouraging growers to maintain surface water delivery systems. FID's delivery system was built for flood irrigation, where surface water was delivered in a larger slug of water over a shorter period of time, typically a scheduled day or two during the month. As

landowners convert to drip or micro-sprinkler systems, they require surface water delivery at lower volumes over extended periods of time.

Will the proposed WaterSMART project directly facilitate the on-farm improvement?

If so, how? For example, installing a pressurized pipe through WaterSMART can help support efficient on-farm irrigation practices, such as drip-irrigation.
Recovering additional water that can be conveyed in FID's system will extend the FID's delivery schedule and encourage overall on-farm use of surface water by growers.

OR

Will the proposed WaterSMART project complement the on-farm project by maximizing efficiency in the area? If so, how?
The project will provide solar power so that the District can maximize the use of the recovery wells and pump station, thereby extending the delivery season and use of surface water on-farm by growers.

Describe the on-farm water conservation or water use efficiency benefits that are expected to result from any on-farm work.
There is no direct on-farm work associated with the project, however the project will allow for extended delivery of water in FID's canals and pipelines, extending the season for on-farm use of District deliveries rather than individual pumping.

Estimate the potential on-farm water savings that could result in acre-feet per year. Include support or backup documentation for any calculations or assumptions.
The project is conservatively estimated to provide 1,000 acre-feet per year of water savings as previously documented in this application. The amount of water conserved and delivered to growers is the amount that will not be pumped by growers during that delivery period.

Please provide a map of your water service area boundaries. If your project is selected for funding under this NOFO, this information will help NRCS identify the irrigated lands.
The boundary of FID is included in Figure 1 and Figure 2.

READINESS TO PROCEED

It is assumed that the grant contract will be signed on December 31, 2024. Recent experience with other USBR grant funded projects is that the NEPA process, particularly the Cultural Review, has been taking 12 months for the USBR and its review partners to complete. The time for this process is the critical path and has been included in the schedule. It is estimated that all construction work will be completed by April 2026. This is well before the contractual deadline of December 31, 2027. This provides a comfortable buffer in case of unforeseen delays, and it should be noted that if the

NEPA process does not take as long as it has been, the project should be able to be completed much sooner. The schedule is consistent with other similar projects. A detailed schedule is included in Appendix F.

The Project, if awarded funding, could start construction within 12 months, if not sooner depending on USBR cultural review consultation and approval timeframe. A Request for Proposals will be sent out and an experienced and appropriate solar contractor will be selected for design and installation of the Project.

An estimated Project schedule is provided below with major tasks and milestones described is enclosed below.

1. CEQA Compliance. This solar project will be constructed entirely at existing project sites that have previously completed CEQA compliance. A Notice of Exemption is anticipated to be the appropriate level of CEQA for the addition of the solar arrays at each site. It is anticipated that CEQA will be completed by the end of February 2025.
2. NEPA Compliance. If awarded a grant and NEPA is required for the grant funding, a Categorical Exclusion for NEPA with technical studies for Biological and Cultural studies is anticipated to be appropriate for USBR as the NEPA lead agency. It is anticipated that NEPA would be completed by the end of May 2025.
3. Stormwater Pollution Prevention Plan. The Stormwater Pollution Prevention Plan will be prepared coincident with the project design and specifications. Permits would be acquired by the end of April 2025.
4. Dust Control Permit. A dust control permit will be obtained from the local air board right after final design is completed. Permits would be acquired by the end of April 2025.
5. Electrical Connection. Approval for electrical connection with the local utility will be required. This process will start during the final design efforts.

No new policies or administrative actions are needed as a part of the Project.

COLLABORATION

Please describe how the project promotes and encourages collaboration. Consider the following:

Is there widespread support for the project? Please provide specific details regarding any support and/or partners involved in the project. What is the extent of their involvement in the process?

The Project is supported by FID stakeholders, surrounding agricultural and farming communities. Letters of Support from the Kings Basin Water Authority, North Kings Groundwater Sustainability Agency, Kings Rover Conservation District, and The Fresno County Farm Bureau are attached for review in **Appendix C**.

What is the significance of collaboration/support?
The Project is significant as it demonstrates the District's desire to contribute to reduction of GHG and provide long term reliable cost appropriate water for their clients which in turn provides food to the local and state economy.

Will this project increase the possibility/likelihood of future water conservation improvements by other water users?
As the Project could directly benefit both the District and the surrounding communities by showing the benefits of providing clean energy it is possible that other Districts or users will complete similar projects.

Will the project benefit multiple sectors and/or users (e.g., agriculture, municipal and industrial, environmental, recreation, or others)?
The Project will benefit multiple sectors including agricultural and rural water users. The Project will directly pass on the savings to agricultural water users, especially in times of need. The Project serves disadvantaged communities which will benefit from FID being able to implement greater water and energy efficiency.

Please attach any relevant supporting documents (e.g., letters of support or memorandum of understanding).
Letters of Support are attached in **Appendix C.**

NEXUS TO RECLAMATION

Does the applicant have a water service, repayment, or O&M contract with Reclamation?
FID currently holds a water contract with the USBR (Friant Division Central Valley Project contract No. 14-06-200-1122A-D (C2) for 75,000 acre-feet of Class II San Joaquin River water.

If not a Reclamation contractor, does the applicant receive water through a Reclamation contractor or by any other contractual means?
This does not apply.

Will the proposed work benefit a Reclamation area or activity?
Yes, the Project and the District are both located within the Central Valley Project's Friant Division, and the District is within the CVP Place of Use. FID is dependent on their CVP supplies to meet their full water demands. The project will directly benefit a Reclamation Project Area.

Is the applicant a Tribe?
The District is not a Tribe therefore this does not apply.

(E) PERFORMANCE MEASURES

Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project (e.g., water saved or better managed, energy generated or saved). For more information calculating

performance measure, see *Appendix A: Benefit Quantification and Performance Measure Guidance.*

The electrical power usage after completion of the project will be compared to historic usage. There are PG&E meters for each of recovery wells that will be used for the comparison. To quantify the additional water recovered, the use of the recovery well after completion of the solar project installation will be compared to operation of the recovery wells prior to solar installation. Each of the wells is metered, and the District maintains records of historic operation of the wells, so a comparison of the extended operation can easily be made.

2 BUDGET NARRATIVE

BUDGET PROPOSAL

The budget proposal has been developed by a solar consulting firm with professional experience with developing similar projects, including projects that include USBR grant funding. A detailed summary report of the project work including cost is included in **Appendix E.** The District will perform administration and management and oversee the entire process; however, it will not charge time to the project.

The District will contract with the appropriately licensed and experienced professional consultants and contractors to complete the work associated with the project. The District's consulting engineer will prepare site grading plans to accommodate the solar array. **Table 4** provides a summary of the totals under each category to complete the work, and the detailed supporting information for each of the items is included in **Appendix E.** A more detailed description of the costs for each category is included below.

a. Personnel

The project manager will be the District's Special Projects Manager, Kassy Chauhan. District staff will participate in contract negotiations, project management, project administration, consultant management, design review and grant reporting. District staff have successfully completed numerous projects, including several that have received USBR grant funding. These efforts will not be billed to the project and FID will not seek either reimbursement or credit towards cost share.

b. Fringe Benefits

Since FID will not charge salary costs to the project or provide work-in-kind, there will be no fringe benefit costs included.

c. Travel

Travel expenses will include limited mileage costs for consultants to attend project meetings, visit the site, perform surveying, and monitor construction. These will be billed at the standard IRS mileage rate in effect at the time of the project. Since these costs are for consultants, they are placed in the Contractual category.

d. Equipment

The Project will include equipment for site preparation, installation of panels, and connection to the electrical system. This equipment will be provided by contractors, with their costs falling under the Contractual category below.

e. Supplies

Materials and supplies needed for the Project will be provided by consultants and contractors, with their costs falling under the Contractual category below.

f. Contractual

The District will contract for all of the work associated with this grant, so all costs associated with the project are included in this category. The summary cost for these services is included in **Table 4,** and a detailed breakdown with supporting information is included in **Appendix E.**

The District will contract with its consultant engineer and environmental planner to complete the work associated with grant support, survey, environmental documentation, bidding support and construction management. The District's consulting engineer is experienced with these types of projects. **Appendix E** includes an estimate of consultant costs with a detailed breakdown of tasks, subtasks, person-hours, billing rates and direct costs. The hours and hourly rates considered factor in potential increases of the project period. This estimate was prepared by an engineering consulting firm that also assisted in developing the preliminary design, preliminary CEQA/NEPA memo and the scope of work, is familiar with the District's water system, and has designed similar projects.

The District will bid for both the site grading and solar installation work. A Preliminary Engineer's Opinion of Probable Construction Cost (EOPCC) has been prepared and included in **Appendix E.** The EOPCC was prepared by the solar consultant hired by the District and includes a detailed listing of potential bid items. The estimated amount of grading and earthwork was assumed to provide flat and level ground at each project site. The estimated earthwork cost was based on recent earthwork bids by the District at similar basins. The earthwork will be bid as one package for a contractor to compete at all sites. Similarly, a single bid package will be prepared for a solar contractor to complete installation and connection at all sites.

g. Construction

All construction work associated with the project will be contracted, so the construction items are included in the Contractual category.

h. Other Direct Costs

There will be no third-party contributions.

i. Total Direct Costs

A detailed listing of the categories and totals for each category is shown in **Table 4**. The detail supporting these costs are included in **Appendix E**.

j. Indirect Costs

The project will not have indirect costs.

j. TOTALS

A detailed listing of the categories and totals for each category is shown in **Table 4**. The detail supporting these costs is included in **Appendix E**. FID will provide the required 50% cost share.

Table 4 – Budget Totals

Budget Item Description	Computation		Quantity Type	Total Cost
	Unit Cost	Quantity		
Salaries &Wages (FID)	$0			$0
Fringe Benefits (FID)	$0			$0
Travel (under contractual)	$0			$0
Equipment (under contractual)	$0			$0
Supplies/Materials (under contractual)	$0			$0
Contractual (see Appendix G for details)				
Professional Services				
Grant Administration (see Budget support table 1 for detail)	$15,000	1	-	$15,000
CEQA/NEPA and Permitting (see Budget support table 1 for detail)	$59,350	1	-	$59,350
Engineering Design (see Budget support table 1 for detail)	$44,950	1		$44,950
Contractors				
Contractor (see Budget support table 2 for detail)	$ 8,208,845	1	-	$8,208,846
Other	$0			$0
Total Direct Costs				**$8,328,146**
Indirect Costs – 0.0%				$0
Total Project Costs				**$8,328,146**

Funding Sources	Amount	Percentage
Costs to reimbursed with the requested Federal funding	$4,164,073	50.00%
Costs to be paid by the applicant	$4,164,073	50.00%
Value of third-party contributions	$0	0%
Totals	$8,328,146	100%

Funding Sources	Amount
Fresno Irrigation District – Cash Contributions	$4,164,073
Subtotal: Non-Federal Funding	$4,164,073
Requested Reclamation Funding	$4,164,073
Other Federal Funding	$0
Project Funding Total	$8,328,146

3 ENVIRONMENTAL AND CULTURAL RESOURCES COMPLIANCE

All questions within Section H.1 – Environmental and Cultural Resources considerations have been answered.

Will the proposed project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)?

There will be some generation of dust associated with work activities on the site during ground disturbing work. All impacts will be temporary and with implementation of a fugitive dust control plan will be less than minimal. With proper stormwater control measures there should be no impacts on water (quality and quantity).

Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?

The District is not aware of any listed species or proposed species to be listed on site. A preconstruction survey for biological resources will be completed as needed. If required, protective measures will be followed to minimize or avoid impacts to animal habitats and all potentially present species.

Are there wetlands or other surface waters inside the project boundaries that **potentially all under CWA jurisdiction as "Waters of the United States"? If so,** please describe and estimate any impacts the proposed project may have.

There are no wetlands or surface waters that fall under the jurisdiction of the CWA or that are considered WOTUS on the sites.

When was the water delivery system constructed?

The District was formed in 1921 with most of the delivery system constructed in the late 1800's. The system was constructed to deliver water from the Kings River to previously non-irrigated parts of Fresno County.

Will the proposed project result in any modification of or effects to individual features of an irrigation system (e.g., headgates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.

The Project would not result in any modifications or effects to individual features of the irrigation system therefore this does apply.

Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.

The District is not aware of any buildings, structures, or features in the District that are listed on the National Register of Historic Places.

Are there any known archeological sites in the proposed project area?

There are no known archaeological sites within the proposed project area.

Will the proposed project have a disproportionate and adverse effect on any communities with environmental justice concerns?

The Project will not have an adverse impact on communities with environmental justice concerns.

Will the proposed project limit access to, and ceremonial use of, Indian sacred result in other impacts on Tribal lands?

The proposed project will not limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands. There are no known sacred Indian sites in the vicinity of the project.

Will the proposed project contribute to the introduction of continued existence of noxious weeds or non-native invasive species known to occur in the area?

The proposed Project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area.

4 REQUIRED PERMITS OR APPROVALS

Required permits and approvals include the following:

1. CEQA Compliance. This solar project will be constructed entirely at existing project sites that have previously completed CEQA compliance. A Notice of Exemption is anticipated to be the appropriate level of CEQA for the addition of the solar arrays at each site.
2. NEPA Compliance. If awarded a grant and NEPA is required for the grant funding, a Categorical Exclusion for NEPA with technical studies for Biological and Cultural is anticipated to be appropriate for USBR as the NEPA lead agency.
3. Stormwater Pollution Prevention Plan. The Stormwater Pollution Prevention Plan will be prepared coincident with the project design and specifications.
4. Dust Control Permit. A dust control permit will be obtained from the local air board right after final design is completed.
5. Electrical Connection. Approval for electrical connection with the local utility will be required. This process will start during the final design efforts.

5 OVERLAP OR DUPLICATION OF EFFORT STATEMENT

FID is not aware of any overlap or duplication of efforts associated with this Project

6 CONFLICT OF INTEREST DISCLOSURE STATEMENT

The District is not aware of any actual or potential conflicts of interest that would impact either the grant application or the project if it is funded by USBR. The District will notify USBR promptly if a conflict of interest arises.

(A) APPLICABILITY

This section intends to ensure that non-Federal entities and their employees take appropriate steps to avoid conflicts of interest in their responsibilities under or with respect to Federal financial assistance agreements.

In the procurement of supplies, equipment, construction, and services by recipients and by sub recipients, the conflict-of-interest provisions in 2 CFR§200.318 apply.

(B) NOTIFICATION

Non-Federal entities, including applicants for financial assistance awards, must disclose in writing any conflict of interest to the DOI awarding agency or pass- through entity in accordance with 2 CFR §200.112.

Recipients must establish internal controls that include, at a minimum, procedures to identify, disclose, and mitigate or eliminate identified conflicts of interest. The successful applicant is responsible for notifying the Financial Assistance Officer in writing of any conflicts of interest that may arise during the life of the award, including those that have been reported by sub recipients.

(C) RESTRICTIONS ON LOBBYING

FID has not engaged in any lobbying, therefore form SF-LLL is not required.

(D) REVIEW PROCEDURES

The Financial Assistance Officer will examine each conflict-of-interest disclosure on the basis of its particular facts and the nature of the proposed grant or cooperative agreement and will determine whether a significant potential conflict exists and, if it does, develop an appropriate means for resolving it. Enforcement. Failure to resolve conflicts of interest in a manner that satisfies the government may be cause for termination of the award. Failure to make required disclosures may result in any of the remedies described in 2 CFR §200.339, Remedies for noncompliance, including suspension or debarment (see also 2 CFR §180).

7 UNIFORM AUDIT REPORTING STATEMENT

FID was not required to file a Single Audit Report last year.

8 CERTIFICATION REGARDING LOBBYING

This does not apply to the Project and the form is not required.

9 SF-LLL: DISCLOSURE OF LOBBYING ACTIVITIES (IF APPLICABLE)

FID has not engaged in any lobbying, therefore form SF-LLL is not required.

10 LETTERS OF SUPPORT

The project benefits are described above, but the qualitative significance of the project benefits is best demonstrated by the numerous letters of support from stakeholders, which can be found in **Appendix C**. Several stakeholder groups provided letters including local water agencies, regional water management agencies, and non-profit organizations. Letters were received from the following:

North Kings Groundwater Sustainability Agency
Fresno County Farm Bureau
Kings Basin Water Authority
Kings River Conservation District

There is no known opposition to the project. No letters of opposition have been received, and no opposition to the project was made during the adoption of the Resolution to prepare the grant application.

11 LETTER OF PARTNERSHIP (CATEGORY B APPLICANTS)

The District is a Category A applicant therefore this section does not apply.

12 OFFICIAL RESOLUTION

If selected, the applicant must provide prior to award an official resolution adopted by your organization's board of directors or governing body, or, for state government entities, an official authorized to commit the applicant to the financial and legal obligations associated with receipt of a financial assistance award under this NOFO, verifying:

Appendix D includes the resolution authorizing the preparation of this application and funding for the District's cost share that will be adopted at FID's February 8th, 2024, Board meeting.

13 LETTERS OF FUNDING COMMITMENT

FID believes this Project will help provide both water and energy efficiency benefits, which is critical for the stakeholders in the area. The Project will lead to overall improved management and energy efficiency for the District and its stakeholders therefore the District is committed to providing the required funding. The District will pay all remaining costs not covered by the USBR.

FID will provide the entire local cost share for the project. A funding source other than the applicant (FID) is not included or required. **Appendix G** is documentation for the District's cost share. The total reserve funds exceed the proposed cost share and ensures that FID will have sufficient assets to enter the grant agreement and complete the project.

14 UNIQUE ENTITY IDENTIFIER AND SYSTEM FOR AWARD MANAGEMENT

FID has previously received grants from USBR and is already registered with the System for Award Management and meets other requirements for award and implementation of a grant contract.

The District uses the following identifiers:
Employer Identification Number : 23-7046670
Unique Entity Identifier : KCMZJ7VGCUM3

Appendix C – Letters of Support

Fresno County
Farm Bureau
Serving agriculture since 1917

February 13, 2024

Fresno Irrigation District
Laurence Kimura, PE
2907 S. Maple Ave.
Fresno, CA 93725
Telephone: (559) 233-7161 x7103
E-mail: LKimura@fresnoirrigation.com

Subject: Letter of Support for USBR Water and Energy Efficiency Grant for Fresno Irrigation District

Mr. Kimura,

On behalf of the Fresno County Farm Bureau, I write in support of the Fresno Irrigation District's (FID) projects to: 1) Install solar arrays at existing groundwater banking and pumping facilities; and 2) Improve their Supervisory Control and Data Acquisition (SCADA) system at various facilities throughout the district.

Our agency and the region are dependent on the surface water delivered by FID for both direct delivery as well as to help reach and maintain sustainable groundwater conditions. These FID projects will improve water management and energy efficiency, leading to improved overall water management and operational efficiency for FID and its stakeholders.

The solar project will help reduce FID's overall operational costs and increase FID's ability to use its pumping facilities to provide extended water supply deliveries when needed. The SCADA project will provide for improved operational efficiency and overall surface water measurement, monitoring and management allowing FID to potentially increase controlled diversions and deliveries during storm event periods when additional water supply is available.

We strongly encourage the United States Bureau of Reclamation to award FID's grant and fund their projects.

Sincerely,

Mark Thompson
President

Upper Kings Basin IRWM Authority
4886 East Jensen Avenue
Fresno, CA 93725
phone: (559) 237-5567
fax: (559) 237-5560

KINGS BASIN
Water Authority

February 8, 2024

Mr. Laurence Kimura, PE
Fresno Irrigation District
2907 S. Maple Ave.
Fresno, CA 93725

Re: Letter of Support for USBR Water and Energy Efficiency Grant for Fresno Irrigation District

Dear Mr. Kimura:

The Kings Basin Water Authority (KBWA) is supportive of the Fresno Irrigation District's (FID) project to: 1) Install solar arrays at existing groundwater banking and pumping facilities; and 2) Improve their SCADA system at various facilities throughout the District.

The KBWA is a collaborative effort among nearly 60 public, private, and non-governmental agencies to manage water resources in the Kings Groundwater Subbasin and oversees the implementation and monitoring of the Kings Basin Integrated Regional Water Management Plan (IRWMP). The communities and industries in our region are dependent on the surface water delivered by FID for both direct delivery as well as to help reach and maintain sustainable groundwater conditions. These FID projects will improve water management and energy efficiency, leading to improved overall water management and operational efficiency for FID and its stakeholders. The solar project will help reduce FID's overall operational costs and increase FID's ability to use its pumping facilities to provide extended water supply deliveries when needed. The SCADA project will provide for improved operational efficiency and overall surface water measurement, monitoring, and management allowing FID to potentially increase controlled diversions and deliveries during storm event periods when additional water supply is available.

The KBWA strongly encourages the United States Bureau of Reclamation to award FID's proposal and fund their project. If you have any questions, please contact me at MFast@reedley.ca.gov.

Sincerely,

Mary Fast

Mary Fast,
Chair

MF/SL/sjs

UKB L24-0004
File UKB 101.01.04

KRCD
Kings River Conservation District

4886 East Jensen Avenue
Fresno, California 93725

Tel: 559.237.5567
Fax: 559.237.5560

www.krcd.org
@kingsrivercd

February 8, 2024

Laurence Kimura, PE
Fresno Irrigation District
2907 S. Maple Ave.
Fresno, CA 93725

Re: Letter of Support for USBR Water and Energy Efficiency Grant for Fresno Irrigation District

Dear Mr. Kimura:

The Kings River Conservation District (KRCD) is supportive of the Fresno Irrigation District's (FID) project to: 1) Install solar arrays at existing groundwater banking and pumping facilities; and 2) Improve their SCADA system at various facilities throughout the District.

Many communities and industries in our service area are dependent on the surface water delivered by FID for both direct delivery as well as to help reach and maintain sustainable groundwater conditions. These FID projects will improve water management and energy efficiency, leading to improved overall water management and operational efficiency for FID and its stakeholders. The solar project will help reduce FID's overall operational costs and increase FID's ability to use its pumping facilities to provide extended water supply deliveries when needed. The SCADA project will provide for improved operational efficiency and overall surface water measurement, monitoring, and management allowing FID to potentially increase controlled diversions and deliveries during storm event when additional water supply is available.

KRCD strongly encourages the United States Bureau of Reclamation to award FID's proposal and fund their project. If you have any questions, please contact me at DMerritt@krcd.org.

Sincerely,

David Merritt
General Manager

DM/SL/dmr

L24-0019
File 400.10

NORTH KINGS GROUNDWATER
SUSTAINABILITY AGENCY

February 12, 2024

Mr. Laurence Kimura, PE
Fresno Irrigation District
2907 S. Maple Ave.
Fresno, CA 93725

Dear Mr. Kimura:

RE: **North Kings Groundwater Sustainability Agency's Letter of Support for USBR Water and Energy Efficiency Grant for Fresno Irrigation District**

On behalf of the North Kings Groundwater Sustainability Agency (NKGSA), I write in support of the Fresno Irrigation District's (FID) project to: 1) Install solar arrays at existing groundwater banking and pumping facilities; and 2) Improve their SCADA system at various facilities throughout FID.

The NKGSA and the region are dependent on the surface water delivered by FID for both direct delivery for municipal and agricultural uses and it is critical to help reach and maintain sustainable groundwater conditions. These FID projects will improve water management and energy efficiency, leading to improved overall water management and operational efficiency for FID and its stakeholders. The solar project will help reduce FID's overall operational costs and increase FID's ability to use its pumping facilities to provide extended water supply deliveries when needed. The SCADA project will provide for improved operational efficiency and overall surface water measurement, monitoring, and management allowing FID to potentially increase controlled diversions and deliveries during storm event periods when additional water supply is available.

Internet
www.NorthKingsGSA.org

Mail
North Kings GSA
c/o Fresno Irrigation District
2907 S. Maple Ave.
Fresno, CA 93725

Phone
559-233-7161

About NKGSA: The North Kings Groundwater Sustainability Agency is a Joint Powers Authority formed in December 2016. Composed of local public agencies and others engaged through binding agreements, the NKGSA is the governing body of a portion of the Kings Subbasin (DWR Bulleting 118, 5-22.08) in compliance with the Sustainable Groundwater Management Act of 2014. NKGSA members are Bakman Water Company, Biola Community Services District, City of Clovis, City of Fresno, City of Kerman, County of Fresno, Fresno Irrigation District, Fresno Metropolitan Flood Control District, Garfield Water District, and International Water District.

The NKGSA encourages the United States Bureau of Reclamation to award FID's grant and fund their project. Thank you for considering these FID projects and all their benefits. Please do not hesitate to reach out should you have any questions. I can be reached at 559-233-7161, x. 7109 or by email at kchauhan@fresnoirrigation.com.

Sincerely,

Kassy D. Chauhan

Kassy D. Chauhan,
Executive Officer

Appendix D – Board Resolution

RESOLUTION NO. 2024-06

A RESOLUTION BY THE BOARD OF DIRECTORS OF THE FRESNO IRRIGATION DISTRICT FOR A GRANT FROM THE UNITED STATES BUREAU OF RECLAMATION WATERSMART WATER AND ENERGY EFFICIENCY PROJECTS FOR FISCAL YEAR 2024 FOR SOLAR PROJECT

Whereas, the Fresno Irrigation District is a public agency and is eligible to submit an application for funding from the WaterSMART Water and Energy Efficiency Resiliency Projects for Fiscal Year 2024;

Whereas, the Fresno Irrigation District plans to install solar arrays at existing groundwater banking and pumping facilities to reduce overall energy use costs;

Whereas, Fresno Irrigation District will commit to the financial and legal obligations associated with receipt of financial assistance under the grant program;

Whereas, the Fresno Irrigation District has reviewed and supports the proposed application;

Whereas, the Fresno Irrigation District has the full capability to provide the amount of funding and/or in-kind contributions specified in the funding plan;

Whereas, if selected for a grant, the Fresno Irrigation District will work with United States Bureau of Reclamation to meet established deadlines for entering into a cooperative agreement.

RESOLVED by the Board of Directors of the Fresno Irrigation District that pursuant and subject to all of the terms and provisions of the WaterSMART Water and Energy Efficiency Grant Application, and amendments thereto, application by this District be made to the United States Bureau of Reclamation to obtain a grant for the solar project.

The General Manager is hereby authorized and directed to prepare the necessary data, make investigations, sign, and file such application, and ifawarded work directly with the United States Bureau of Reclamation to finalize the necessary documents for award, reporting and reimbursement under the grant contract.

PASSED, APPROVED, AND ADOPTED at a regular meeting of Fresno Irrigation District, Fresno California, on this 8th day of February 2024, by the following votes:

Ryan Jacobsen, President

I, BILL STRETCH, Secretary of the Board of Directors of the Fresno Irrigation District (the "Board"), hereby certify that the foregoing is a full, true, and correct copy of Board Resolution No. 2024-06 (the "Resolution"), that the Board has not amended or repealed the Resolution, and that the Board duly adopted the Resolution at a regular Board meeting held on the 8th day of February 2024, and that the Board adopted the Resolution by the following vote:

	Aye	Nay	Absent	Abstain
President Jacobsen	✓			
Vice-President Prieto, Jr.	✓			
Director Porter	✓			
Director Beberian	✓			
Director Woolf	✓			

William R. Stretch

Bill Stretch, Board Secretary