

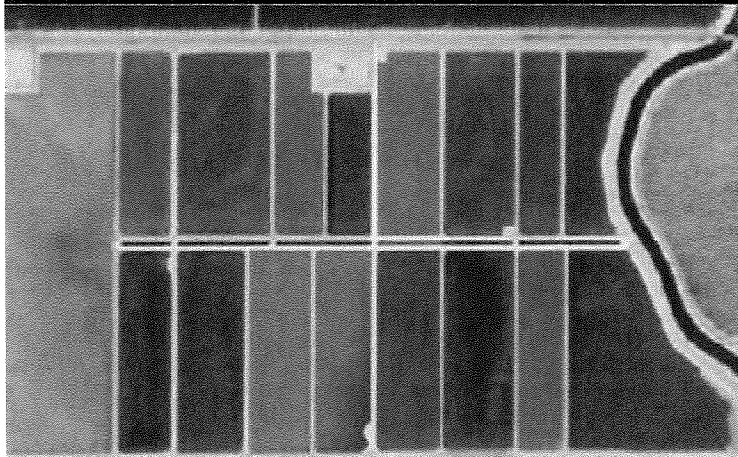
April 2022

**WaterSMART Grants FY 2022:  
Small-Scale Water Efficiency  
Funding Opportunity Announcement No. R22AS00195**

## **Energy Efficiency Improvement to Kimberlina Recharge Facility**

APR 28 '22 PM 2:51

Project Location: Northwest Kern County, Southern San Joaquin Valley, CA



**Applicant**  
Shafter-Wasco Irrigation District  
P.O. Box 1168 Wasco, CA 93280



# WaterSMART Small-Scale Water Efficiency Projects

Funding Opportunity No. R22AS00195

## **Energy Efficiency Improvement to Kimberlina Recharge Facility**

### **Project Location**

Shafter-Wasco Irrigation District, Kimberlina Recharge Facility  
Northwestern Kern County  
of the Southern San Joaquin Valley, CA

### **Applicant**

Shafter-Wasco Irrigation District

16294 Central Valley HWY  
Wasco, CA 93280

### **Project Manager**

Kris Lawrence

klawrence@swid.org  
Phone: (661) 758-5153

April 28, 2022

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# 1. Technical Proposal

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## 1.1 Executive Summary

The Shafter-Wasco Irrigation District (Shafter-Wasco, SWID, District) proposes a cost-shared project with the U.S. Bureau of Reclamation (Reclamation, USBR). The *Energy Efficiency Improvement to Kimberlina Recharge Facility* (Project) proposes drought resiliency, increased efficiency, and improved system functionality for the District by replacing soft starters with variable frequency drives (VFDs) on the three existing recovery wells in the District’s recently constructed Kimberlina Spreading Grounds (spreading grounds, Facility). The Facility and recovery wells allow the District to store or “bank” water from the Friant-Kern Canal (FKC) in the District through groundwater recharge during wet years for later return into their distribution system to meet irrigation demands during dry years. Soft starters provide limited control, which results in system water loss. VFDs will be added to improve operations for return using the existing recovery wells. Installing VFDs will improve water management of the system by providing the ability to adjust flow control with a range of the volume recovered from the wells for distribution system use. This will eliminate backflow loss to the FKC and result in successful delivery of recovered water previously stored in the Facility. This improvement is a crucial part of SWID’s overall goal of providing drought resiliency through groundwater banking activities as it prevents water loss from the recovery wells to the distribution system for beneficial use.

In conclusion, the project enhances drought resiliency for District landowners by preventing water loss crucial for supply during dry years, which in turn avoids adverse economic and environmental issues associated with continuous groundwater level declines. The project expenses will include the purchase and installation of three VFDs and associated electrical equipment required to connect the VFDs to the wells. Total Project costs are estimated at \$123,806. Of this, \$61,903 is requested as Federal funding. Table 1 contains project information, the construction timeline, and contact information for the applicant.

**Table 1. Project and Applicant Information**

Project Information	
<b>Date</b>	April 28, 2022
<b>Project Name</b>	Energy Efficiency Improvement to Kimberlina Recharge Facility
<b>Estimated Construction Date</b>	Three-month duration within May 2023 to December 2024
<b>Expected Project Completion</b>	No later than December 2024
<b>Near a Federal Facility?</b>	No, one-mile west of the Friant Kern Canal
Applicant Information	
<b>Name, Title</b>	Kris Lawrence, General Manager
<b>Telephone</b>	(661) 758-5153
<b>E-mail Address</b>	klawrence@swid.org
<b>City, County, State</b>	Wasco, Kern County, California
<b>Applicant Category</b>	Category A

## **1.2 Project Location**

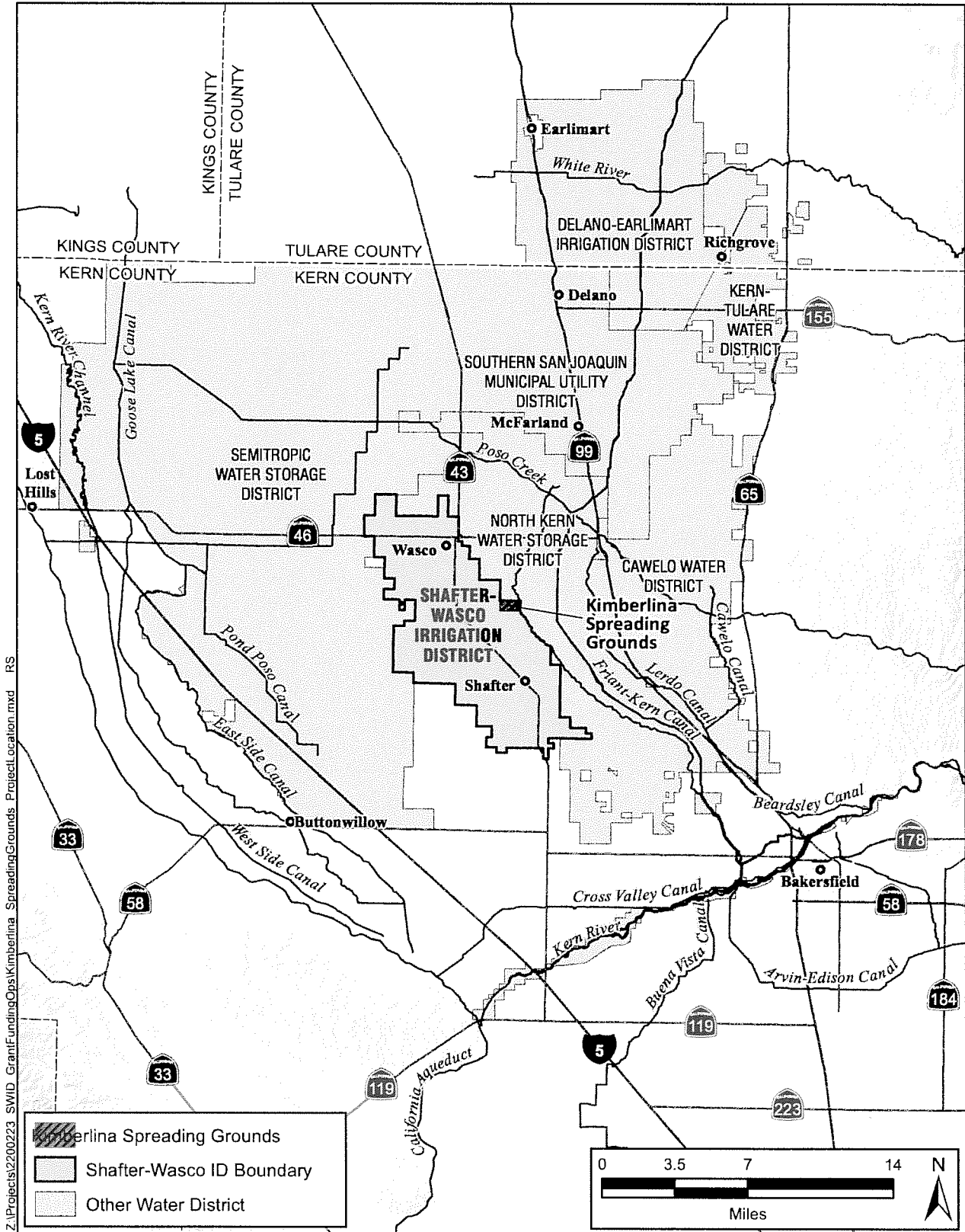
Figure 1 identifies the location of the Kimberlina Spreading Grounds within the Poso Creek Integrated Regional Water Management (IRWM) Region boundary. The spreading grounds are located within SWID's jurisdiction in northwestern Kern County and includes the three well control systems to be upgraded in the proposed project. Figure 2 includes the location of the three well sites within the Project area and provides details of SWID's operational procedures. A side-by-side comparison of the existing and proposed layouts at one of the well sites is shown in Figure 3 to demonstrate the footprint of the proposed project, installing VFDs at each well.

## **1.3 Technical Project Description**

SWID's objective is to replace soft starter controls that operate the three existing recovery wells at the Kimberlina Recharge Facility with VFDs. Adding VFDs would give SWID better control to match the volume of water pumped with scheduled distribution system demands and would increase SWID's ability to successfully deliver water for beneficial use.

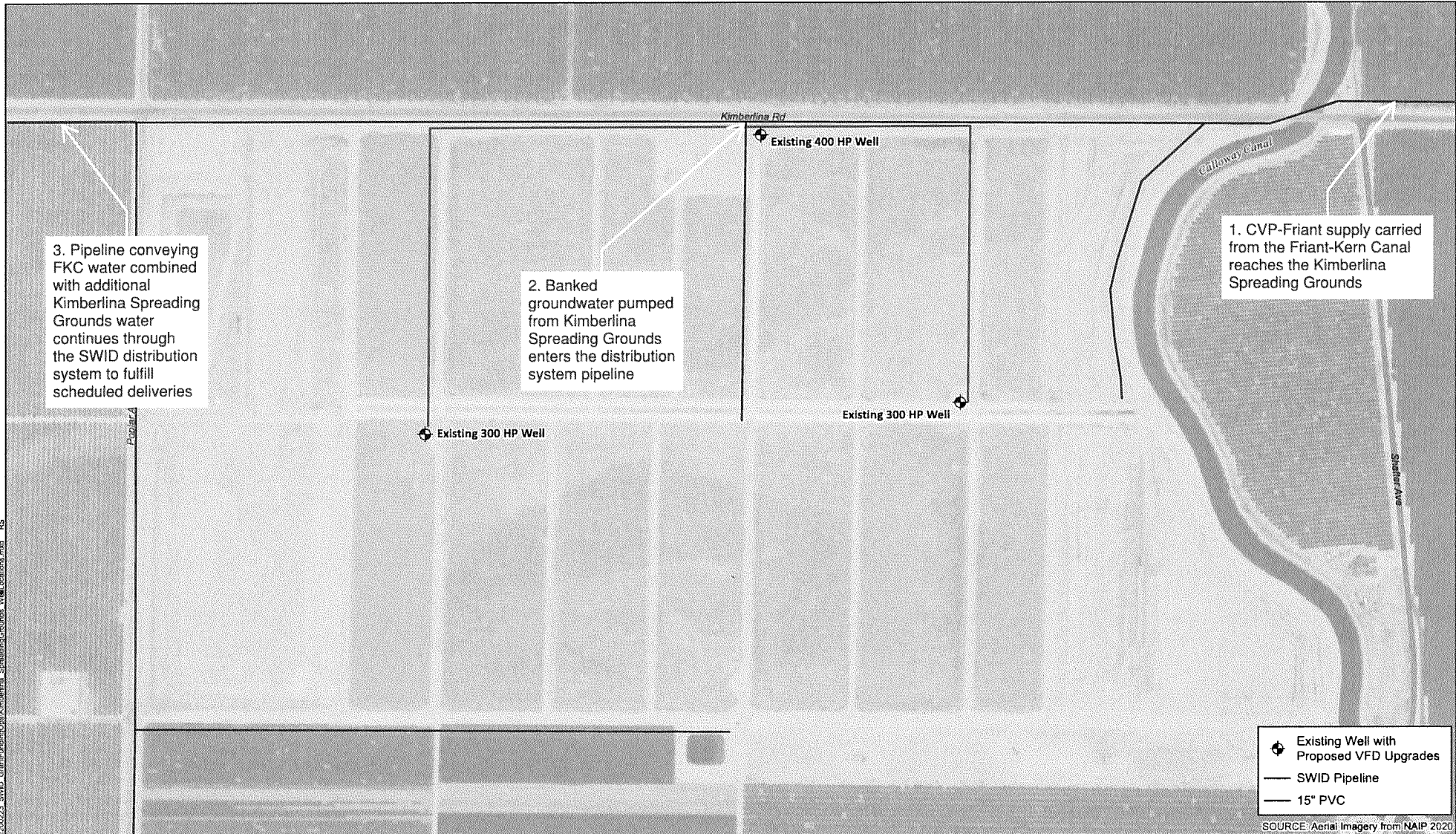
The recently constructed spreading grounds and recovery wells allow the District to store or "bank" water from the FKC in the District through groundwater recharge during wet years for later return into their distribution system to meet irrigation demands during dry years. The proposed VFDs would be added to further improve operations for banked water return using the existing recovery wells.

Under the Facility's current operations, previously stored water from the FKC is pumped from the three Facility wells into the distribution system. Due to the soft starters' limited flow control, the wells must either operate at maximum capacity, or be turned off. Currently, if the volume of returned water from the three wells running at maximum capacity exceeds the distribution system demand, one of the wells must be turned off. In this circumstance, if a well is not turned off, excess water must be conveyed back into the FKC via pipelines and open channel, as the distribution system demands would be exceeded. This results in unnecessary loss of the Facility's banked groundwater and requires additional corrections to surface water delivery orders for downstream recipients. Installing VFDs would improve water management of the system by providing the ability to adjust the water volume pumped from the existing wells for distribution system use. This would eliminate backflow loss to the FKC and result in successful delivery of recovered water previously stored in the Facility. The improvements proposed by this project are a crucial part of SWID's overall goal of providing drought resiliency through groundwater banking activities, as the project would prevent water loss from the spreading ground facility to the distribution system, decrease energy consumption, and reduce the expenses of Facility operations.

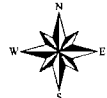
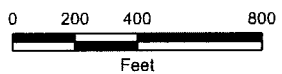


19-Apr-2022 Z:\Projects\2200223 SWID GrantFundingOps\Kimberlina SpreadingGrounds ProjectLocation.mxd RS

Grant Funding Opportunities 2022 Kern County, California		Project Location
Shafter-Wasco Irrigation District	APRIL 2022	FIGURE 1



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Grant Funding Opportunities 2022  
Kern County, California

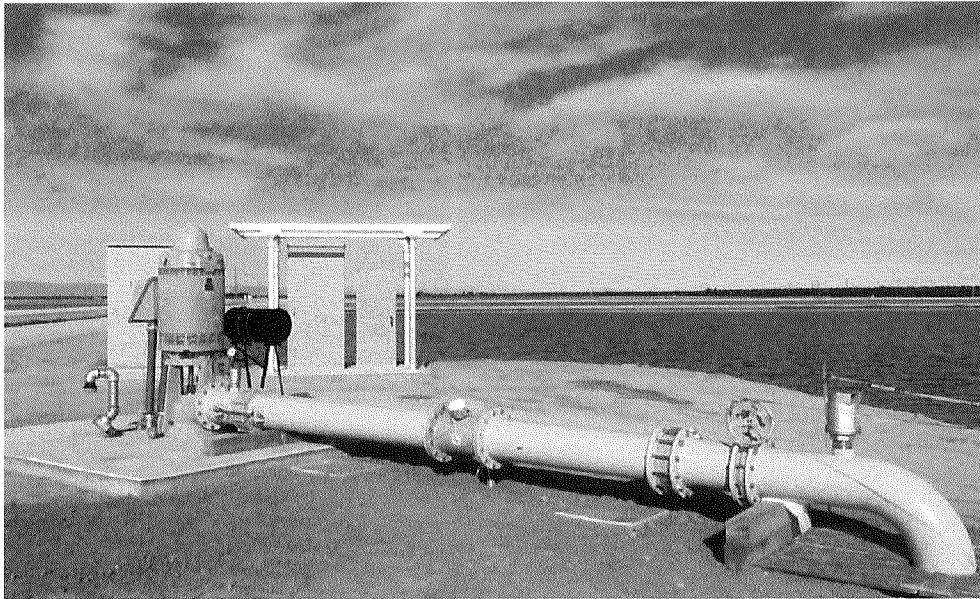
Shafter-Wasco Irrigation District



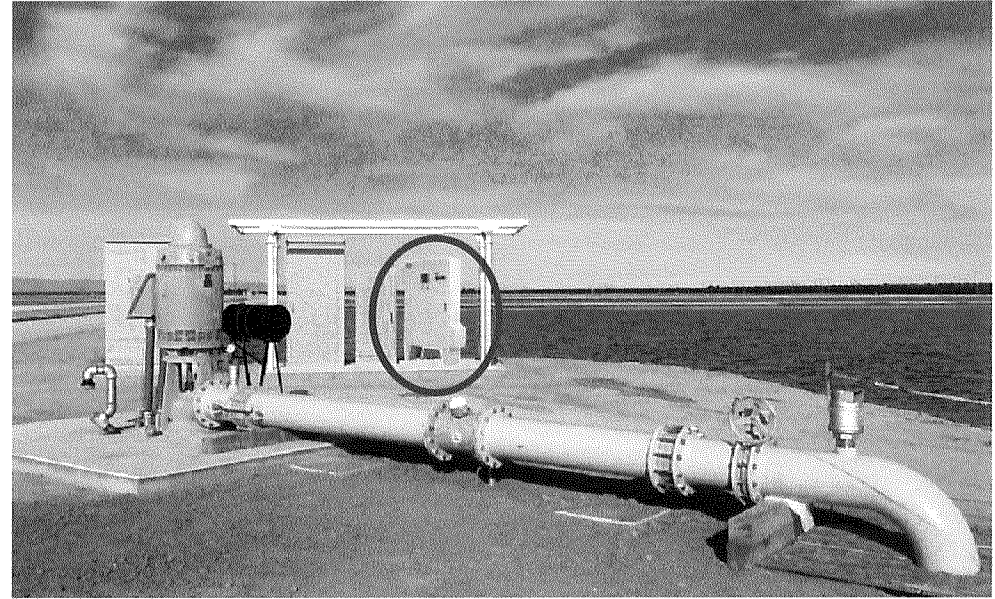
KIMBERLINA SPREADING GROUNDS RECOVERY WELL  
AND PROPOSED VFD UPGRADE LOCATIONS

APRIL 2022

FIGURE 2



Existing well site layout with soft starters



Well site layout with proposed new VFD installed

Not to Scale

SWID Recovery Wells  
Kern County, California

Shafter-Wasco Irrigation District



EXISTING AND PROPOSED SITE LAYOUTS

April 2022

FIGURE



## 1.4 Evaluation Criteria

### 1.4.1 Evaluation Criterion A – Project Benefits

*Describe the expected benefits to the Category A applicant’s water delivery system. Clearly explain the anticipated water management benefits to the Category A applicant’s water supply delivery system and water customers.*

The Kimberlina Spreading Grounds were constructed to retain water supply in wet seasons for use during dry seasons to help fulfill irrigation demands; however, some banked water supply in the Facility is currently lost via backflow to FKC when demands are exceeded when the wells are operating at maximum capacity. To avoid this operational issue, SWID plans to install VFDs to provide better control of volume of the water pumped from the Facility. VFDs would allow water volume extracted from the spreading grounds via the existing wells to be varied, to accommodate what is required to fulfill distribution system demands. This Project would improve current operational challenges and prevent depletion of the Kimberlina Spreading Ground water supply when excess water is extracted and unintendedly lost. Table 2 summarizes the proposed Project improvements to the site.

**Table 2. Summary of Project Improvements**

	Existing Site Details	Proposed Site Improvements
<b>Facility Information</b>	<p><b>Existing Wells at Kimberlina Spreading Grounds:</b></p> <ul style="list-style-type: none"> <li>• Two (2) 300 HP wells with capability to pump 8 acre-ft/day</li> <li>• One (1) 400 HP well with capability to pump 11.5 acre-ft/day</li> <li>• All wells have soft starters, which only have capability to pump water at maximum capacity</li> </ul>	<ul style="list-style-type: none"> <li>• All three existing wells would have VFDs, which would give the wells the capability to pump water at varying flows without greatly increasing the site’s footprint.</li> </ul>
<b>Operational Details</b>	<ul style="list-style-type: none"> <li>• <b>System Operational Procedures:</b> Water volume required to meet distribution demand is a combination of water from CVP-Friant water (conveyed through the FKC) and water pumped from the existing three wells at the Kimberlina Spreading Grounds</li> <li>• <b>Existing Operational Challenges:</b> Due to limitations of the soft starters of the wells, operational procedures are complicated to meet distribution demands. Demands must be met by one of the following methods:               <ol style="list-style-type: none"> <li>1) When distribution system demand is less than volume that CVP-Friant water + existing wells at full capacity can contribute, excess water pumped from the</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>• VFDs will allow fluctuation in the water volume pumped from the wells. This would simplify operational procedures when meeting distribution system demands and prevent water loss due to backflow to the FKC.</li> <li>• VFDs reduce pumping required to meet system demands, which result in energy and cost savings. VFDs remove the need to turn the wells on and off, which incurs electrical expenses and causes</li> </ul>

	<p>wells (due to the wells operating at maximum capacity) flows back into the Friant-Kern Canal, resulting in loss</p> <p>2) When the distribution system demand is greater than the volume that CVP-Friant water + existing wells at full capacity can contribute when the wells are turned off, additional CVP-Friant water must be ordered to fulfill demands</p>	<p>unnecessary wear on the well equipment</p> <ul style="list-style-type: none"> <li>• Less energy would be expended to fulfill distribution system demands</li> <li>• Wells would require less maintenance, as consistently operating at lower flows would cause less wear to the system</li> </ul>
--	--	--

*Explain the significance of the anticipated water management benefits for the Category A applicant’s water delivery system and customers. Are customers not currently getting their full water right at certain times of year? Does this project have the potential to prevent lawsuits or water calls? What are the consequences of not making the improvement? Are customer water restrictions currently required? Other significant concerns that support the need for the project.*

VFDs would benefit the water customers by resolving the challenging operational issue of matching delivery of supply with distribution system demands. Scheduled deliveries (irrigation demands) are met via water from the Friant-Kern Canal and supplemental supply extracted from the existing wells at the Kimberlina Spreading Grounds. Previously stored water is extracted from the Kimberlina Spreading Grounds and delivered into SWID’s conveyance system.

There are no current water restrictions required, but the proposed project would increase the efficiency by extracting only the water volume required to meet distribution system demands.

If VFDs are not incorporated at the project site, the Kimberlina Spreading Grounds will not operate at optimal effectiveness, and some water supply that could be better utilized during dry seasons would be lost due to mismatches with demands. This has potential to lead to future local lawsuits.

*Will the project improve broader water supply reliability at sub-basin or basin scale?*

This project is part of the overall effort to increase the absorptive capacity in the region.

*Will the proposed project increase collaboration and information sharing among water managers in the region? Please explain.*

The project would increase collaboration between water managers within the Poso Creek IRWM Plan. Particularly, neighboring district managers that have intertie connections with SWID would coordinate more frequently. Installing VFDs to the three wells would increase the flexibility and precision of the quantities of return water, which would better meet in-district flow requirements for agricultural and water quality needs. Water quality requirements for delivery of water between districts are currently under development in the region.

*Will the proposed project positively impacts/benefit various sectors and economies within the applicable geographic area (e.g., impacts to agriculture, environment, recreation, and tourism)? Please explain.*

The project would benefit agricultural operations by adding greater functionality to the existing wells. Installing VFDs would reduce the amount of energy required to withdraw water from the spreading grounds and would more effectively meet fluctuations in distribution system demand. Having a variable flow would also increase blending capabilities to meet future crop water quality requirements that are currently under development.

Regarding environmental impacts, the project would effectively result in an increase in the District's water supply reliability, improve groundwater conditions, and contribute to beneficial cumulative effects in regards to socioeconomic, environmental justice, air quality and groundwater resources resulting from increased local water supply reliability.

*Will the project complement work being done in coordination with NRCS in the area (e.g., the area with a direct connection to the districts water supply)? Please explain.*

The project would complement NRCS's current efforts to effectively improve the energy efficiency of crop irrigation by coordinating the banked water return capacity of the three wells with irrigation demands in the region.

*Will the project help address drought conditions at the sub-basin or basin scale? Please explain.*

The project would effectively result in an increase in availability and reliability of the District's water supply, a decrease in the amount of energy used for delivery, and an improvement to groundwater conditions.

#### **1.4.2 Evaluation Criterion B – Planning Efforts Supporting the Project**

*Describe how your project is supported by an existing planning effort. Identify the planning effort and who developed it. If the planning effort was not developed by the Category A applicant, describe the Category A applicant's involvement in developing the planning effort.*

SWID has been involved in multiple regional and district-wide planning efforts that support implementation of the proposed Project. In 2019, the Poso Creek Integrated Regional Water Management (IRWM) Group, to which SWID is a member, completed their 2019 IRWM Plan Update, which supports projects that maintain and enhance water supply reliability as well as improve operational efficiency and flexibility. The Kimberlina Spreading Grounds was one such project identified in the IRWM Plan. The Facility is an integral part of SWID's regional groundwater banking program; thus, water management improvements are crucial for the continuance of benefits. Additionally, in 2020 SWID developed a management area plan in compliance with the Sustainable Groundwater Management Act (SGMA). Like the IRWM Plan, the SGMA planning efforts are focused on maintaining and enhancing supply reliability to sustain

groundwater levels. Projects such as the proposed support SGMA planning efforts by increasing operational flexibility to better manage supply. In turn, this Project maximizes use of the Facility and limits depletion of groundwater supply.

*Describe to what extent the proposed project is supported by the identified plan. Is the project identified specifically in the planning effort? Explain whether the proposed project implement a goal or address a need or problem identified in the existing planning effort? Explain how the proposed project has been determined as a priority in the existing planning effort as opposed to other potential projects/measures.*

This improvement is a crucial part of SWID’s overall goal of providing drought resiliency through groundwater banking activities as it prevents water loss from the recovery wells to the distribution system for beneficial use. A common goal of each of the previously mentioned planning efforts is increasing supply reliability and improving operations to sustainably manage groundwater, which this project seeks to accomplish. Groundwater banking projects and improvements are an integral part of sustainably managing water supply in the region. Due to droughts becoming increasingly frequent, any efforts to improve efficiency of groundwater management are a priority to SWID and the region.

**1.4.3 Evaluation Criterion C – Project Implementation**

*Describe the implementation plan for the proposed project. Please include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates.*

The district intends to install the VFDs during a 3-month window of time between May 2023 and December 2023. The project will be fairly simple to implement and involves contacting vendors to obtain price quote for purchase and installation of the VFDs on existing wells. An estimated project schedule is presented in Table 3.

**Table 3. Project Milestones**

<b>Milestone</b>	<b>Start Date</b>	<b>End Date</b>
Environmental	12/01/2022	3/31/2023
Grant Administration	3/31/2023	3/31/2024
Procurement	4/01/2023	4/30/2023
Implementation	5/01/2023	12/31/2023
Agreement Completion	-	3/31/2024

*Describe any permits that will be required, along with the process for obtaining such permits.*

No additional permits are required for the project. The project falls under a Class 1 Exemption from CEQA. More information can be found in Section 5.

*Identify and describe any engineering or design work performed specifically in support of the proposed project.*

SWID has already equipped three (3) wells at the Kimberlina Recharge facility; two (2) – 300 horsepower turbine well pumps and one (1) - 400 horsepower turbine well pump: including pump bowls, 12” column, tube and shaft, pump head, pump discharge, electric motor, electrical service, meter panel, motor control panel, security, shade cover, and well cage. The 300 HP pumps have a capacity range of 500 to 2,500 gpm (Flowserve 14M160 6 stage 11” impeller trim). The 400 HP pumps have a capacity range of 500 to 3,300 gpm (Flowserve 15EHL/15H226 7 stage, 11.4375” impeller trim). The two 300 HP wells are set 507’ below the ground surface and the 400 HP well is set 510’ below the ground surface.

The proposed project requires the purchase and installation of VFDs to be incorporated at the existing wells to allow varying flow operation instead of either at maximum capacity or turned off.

*Describe any new policies or administrative actions required to implement the project.*

The District’s banking agreement has already been established and the proposed well upgrades were identified and scheduled by the District, as such, no new policies or administrative actions are required to implement this Project.

*Describe the timeline for completion of environmental and cultural resource compliance. Was the timeline for completion of environmental and cultural resource compliance discussed with the local Reclamation office?*

The project falls under a Class 1 Exemption from CEQA. More information can be found in Section 5.

*What is the District’s goal for the timeline of this project?*

The District’s goal is to complete the environmental and cultural resource compliance in time to be ready to begin to install the VFDs in May, 2023.

#### **1.4.4 Evaluation Criterion D – Nexus to Reclamation**

*Is the proposed project connected to a Reclamation project or activity? If so, how? Does the applicant receive Reclamation project water? Is the project on Reclamation project lands or involving Reclamation facilities? Is the project in the same basin as a Reclamation project or activity? Will the proposed work contribute water to a basin where a Reclamation project is located?*

The District is a CVP contractor of Reclamation-managed water supplies. The District has a contract for 50,000 acre-feet of Class I water and 39,600 acre-feet of Class II water. The spreading ground facilities can receive surface water from the Friant-Kern Canal and Calloway Canal in wet

years for recharge. The proposed well VFD installation upgrades would increase system effectiveness in recovering banked, previously stored water for use in the dry years.

#### **1.4.5 Evaluation Criterion E – Presidential Department of Interior Priorities**

##### **Climate Change**

With climate change resulting in more frequent drought, the District is reliant on groundwater banking operations to meet demand during dry years. The proposed Project will increase the effectiveness of the Kimberlina Spreading Grounds, which provides needed water supply during dry seasons. The project would help recover water supply and eliminate conditions that currently lead to water loss from the spreading grounds to the Friant-Kern Canal.

##### **Disadvantaged or Underserved Communities**

There are several disadvantaged and underserved communities in and around the District’s service area. These communities are solely reliant on groundwater and benefit from District groundwater banking operations. Any water brought into the District is recharge to a shared aquifer; thus, any effort made to better manage groundwater benefits all beneficial users in the basin, including disadvantaged communities such as the Cities of Shafter and Wasco, as well numerous domestic well owners scattered across the district.

##### **Tribal Benefits**

The Project does not provide any direct tribal benefits.

## **2. Overlap or Duplication of Effort Statement**

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In terms of costs and activities, no overlap exists between this Project and any other active or proposed projects. Kris Lawrence, General Manager of SWID, will serve as Project Manager for this Project. Similarly, Mr. Lawrence will serve as Project Manager for other projects previously or to be submitted to Reclamation for funding. This proposal does not duplicate any proposal that has been or is anticipated to be submitted for funding Federal or non-Federal funding.

## **3. Conflict of Interest Disclosure**

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At the time of submission of this proposal, no actual or potential conflict of interest exists.

## **4. Uniform Audit Reporting Statement**

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The District’s Single Audit for year ending December 31, 2017 is available on the Federal Audit Clearinghouse website. The District’s Employer Identification Number is 95-6006599. At the time this application is under review, a more recent Single Audit may be available.

## 5. Project Budget

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### 5.1 Funding Plan and Letters of Commitment

The non-federal share of the project cost will be provided by the applicant through their Capital Reserve fund. At this time, it is not anticipated that any part of the non-Federal share will come from sources other than the District.

**Any third-party in-kind costs (i.e., goods and services provided by a third party).**

No third-party in-kind costs have been or are anticipated to be received.

**Any cash requested or received from other non-federal entities.**

No other non-Federal funding has been requested or received for the proposed work.

**Any pending funding requests (i.e., grants or loans) that have not yet been approved and explain how the project will be affected if such funding is denied.**

Currently, the District does not have any other pending funding requests for the Project components.

### 5.2 Budget Proposal

The estimated total cost for the Project is \$123,806, with \$61,903 in requested Federal funding and \$61,903 in Applicant provided cost share. A summary of funding sources is shown in Table 4 and a summary of the estimated total cost is shown in Table 5. The Budget Proposal, by budget category, is show in Table 6 and task level budgets are presented in Tables 7 and 8.

**Table 4. Summary of Non-Federal and Federal Funding Sources**

<b>Funding Sources</b>	<b>Amount</b>
Non-Federal Entities	
1. Applicant	\$ 61,903.00
2. N/A	\$ -
<b>Non-Federal Subtotal</b>	<b>\$ 61,903.00</b>
<b>Requested Reclamation Funding</b>	<b>\$ 61,903.00</b>

**Table 5. Total Project Cost**

<b>Source</b>	<b>Amount</b>
Costs to be reimbursed with the requested Federal funding	\$ 61,903.00
Costs to be paid by the applicant	\$ 61,903.00
Value of third-party contributions	\$ -
<b>Total Project Cost</b>	<b>\$ 123,806.00</b>

**Table 6. Budget Proposal**

BUDGET ITEM DESCRIPTION	COMPUTATION		QUANTITY TYPE	TOTAL COST
	\$/Unit	Quantity		
<b>SALARIES/WAGES</b>				
	\$0.00	0	N/A	<b>\$0.00</b>
<b>FRINGE BENEFITS</b>				
	\$0.00	0	N/A	<b>\$0.00</b>
<b>TRAVEL</b>				
	\$0.00	0	N/A	<b>\$0.00</b>
<b>EQUIPMENT</b>				
	\$0.00	0	N/A	<b>\$0.00</b>
<b>SUPPLIES/MATERIALS</b>				
	\$0.00	0	N/A	<b>\$0.00</b>
<b>CONTRACTUAL</b>				
<b>Contract 1 - Engineering Consultant</b>				
Administration, Grant Reporting, and Procurement Assistance	\$6,764.00	1	LS	\$6,764.00
Environmental Documentation and Regulatory Compliance	\$4,984.00	1	LS	\$4,984.00
<b>Subtotal</b>				<b>\$11,748.00</b>
<b>Contract 2 - Construction Components</b>				
VFD Material 14RHMC 5-STG Assembled O/L 2500 GPOM @ 300 HP	\$26,812.50	2	EA	\$53,625.00
VFD Material 14FHC 5-STG Assembled O/L 3300 GPM @ 400 HP	\$26,812.50	1	EA	\$26,813.00
VFD Installation Labor	\$10,540.00	3	EA	\$31,620.00
<b>Subtotal</b>				<b>\$112,058.00</b>
<b>OTHER</b>				
	\$0.00	0	N/A	<b>\$0.00</b>
<b>TOTAL DIRECT COSTS</b>				<b>\$123,806.00</b>
<b>INDIRECT COSTS</b>				
No Indirect Cost				\$0.00
<b>TOTAL ESTIMATED PROJECT COSTS</b>				<b>\$123,806.00</b>



### **5.3 Budget Narrative**

The following section describes the budget items identified in the Budget Proposal and the basis of which each amount was determined.

#### **Salaries and Wages**

No Salaries and Wages are included in the Budget Proposal.

#### **Fringe Benefits**

No Fringe Benefits are included in the Budget Proposal.

#### **Travel**

No Travel is included in the Budget Proposal.

#### **Equipment**

No Equipment is included in the Budget Proposal.

#### **Materials and Supplies**

No Materials and Supplies are included in the Budget Proposal.

#### **Contractual**

The budget proposal consists of two contracts: one for an engineering consultant and one for construction.

#### ***Engineering Consultant***

The Engineering Consultant will provide assistance with project administration, grant reporting, construction contract procurement, and environmental compliance. Administration includes coordination of all Project activities, such as budget and schedule; coordination with Reclamation; and cost administration. Grant reporting includes required progress, final, and financial reports. For cost estimating purposes, it was assumed that the Project will require two semi-annual reports and a final report. Procurement assistance includes obtaining and reviewing a reasonable number of price quotes from qualified vendors. Environmental and Regulatory Compliance will include coordination with Reclamation and preparation of all necessary environmental documentation. It is anticipated that environmental compliance will be limited to a Categorical Exclusion.

Table 7 provides a breakdown of estimated hours by rate for anticipated staff. A rate sheet is provided in Appendix A. It is noted that the consultant's rates increase approximately five percent annually. These estimates are based on the level of effort required on past comparable projects and the District's experience on projects of similar levels of effort. The District maintains a Purchasing Policy. It is anticipated that procurement of the engineering consultant will be done in accordance with these documents.

It is anticipated that some engineering consultant costs may be incurred during the pre-award process; however, the District understands that no pre-award costs incurred prior to July 1, 2021 will be eligible for inclusion.

### ***Construction***

It is anticipated that one “furnish and install” contract will be retained for procurement and installation of VFDs. A breakdown of estimated construction costs is provided in Table 8. VFD material costs were estimated based on quotes obtained from a local vendor for purposes of this application. VFD labor costs were estimated based on contractual costs from a comparable project. Supporting documentation for construction cost estimates are provided in Appendix A.

It is anticipated that the construction costs will be under the Simplified Acquisition Threshold; accordingly, the District anticipates following Small Purchase Procedure by obtaining quotes from a reasonable number of qualified providers.

### **Third-Party In-Kind Contributions**

No Third-Party In-Kind Contributions are included in the Budget Proposal.

### **Environmental and Regulatory Compliance Costs**

The District understands that Reclamation costs incurred for Environmental and Regulatory Compliance may be deducted from the award. Costs for the District’s consultant to complete environmental compliance and coordinate with Reclamation are included in contractual costs discussed above. It is assumed that previous documentation from the final Environmental Assessment for the SWID Kimberlina Groundwater Recharge Basin and Banking Project completed in September 2016 will cover the environmental requirements of the proposed project for California Environmental Quality Act (CEQA) purposes. The estimated costs are for coordination with Reclamation to prepare a Categorical Exclusion for National Environmental Protection Act (NEPA) compliance.

### **Other Expenses**

No Other Expenses are included in the Budget Proposal.

### **Indirect Costs**

No Indirect Costs are included in the Budget Proposal.

**Table 7. Engineering Consultant**

BUDGET ITEM DESCRIPTION	COMPUTATION		QUANTITY TYPE	TOTAL COST
	\$/Unit	Quantity		
<b>SALARIES/WAGES</b>	\$0.00	0	N/A	<b>\$0.00</b>
<b>FRINGE BENEFITS</b>	\$0.00	0	N/A	<b>\$0.00</b>
<b>TRAVEL</b>	\$0.00	0	N/A	<b>\$0.00</b>
<b>CONTRACTUAL</b>				
<b>Administration, Grant Reporting, and Procurement Assistance</b> <sup>1,2</sup>				
Grade 7	\$274.00	4	HR	\$1,096.00
Grade 5	\$203.00	14	HR	\$2,842.00
Grade 3	\$153.00	14	HR	\$2,142.00
Admin	\$114.00	6	HR	\$684.00
<b>Subtotal</b>				<b>\$6,764.00</b>
<b>Environmental Documentation and Regulatory Compliance</b> <sup>3</sup>				
Grade 7	\$274.00	4	HR	\$1,096.00
Grade 5	\$203.00	6	HR	\$1,218.00
Grade 3	\$153.00	10	HR	\$1,530.00
Admin	\$114.00	10	HR	\$1,140.00
<b>Subtotal</b>				<b>\$4,984.00</b>
<b>TOTAL DIRECT COSTS</b>				<b>\$11,748.00</b>
<b>INDIRECT COSTS</b>				<b>\$0.00</b>
<b>TOTAL ESTIMATED COSTS</b>				<b>\$11,748.00</b>

**Notes:**

<sup>1</sup> Assuming costs for two semi-annual reports and one final report.

<sup>2</sup> Assuming several hours for obtaining price quotes and vendor selection.

<sup>3</sup> Assuming that existing environmental documentation is sufficient. The estimated budget is for coordination with Reclamation to complete a Categorical Exclusion.

**Table 8. Construction**

BUDGET ITEM DESCRIPTION	COMPUTATION		QUANTITY TYPE	TOTAL COST
	\$/Unit	Quantity		
<b>SALARIES/WAGES</b>	\$0.00	0	N/A	<b>\$0.00</b>
<b>FRINGE BENEFITS</b>	\$0.00	0	N/A	<b>\$0.00</b>
<b>TRAVEL</b>	\$0.00	0	N/A	<b>\$0.00</b>
<b>CONTRACTUAL</b>				
<b>Construction Components</b>				
VFD Material <sup>1</sup> 14RHMC 5-STG Assembled O/L 2500 GPOM @ 300 HP	\$26,812.50	2	EA	\$53,625.00
VFD Material <sup>1</sup> 14FHC 5-STG Assembled O/L 3300 GPM @ 400 HP	\$26,812.50	1	EA	\$26,813.00
VFD Installation Labor <sup>2</sup>	\$10,540.00	3	EA	\$31,620.00
<b>Subtotal</b>				<b>\$112,058.00</b>
<b>OTHER</b>	\$0.00	0	N/A	<b>\$0.00</b>
<b>TOTAL DIRECT COSTS</b>				<b>\$112,058.00</b>
<b>INDIRECT COSTS</b>	\$0.00	0	N/A	<b>\$0.00</b>
<b>TOTAL ESTIMATED SUBRECIPIENT COSTS</b>				<b>\$112,058.00</b>

<sup>1</sup> Estimate provided by vendor. Estimate included in Appendix A.  
Cost rounded and tax included in price provided in table.

<sup>2</sup> Estimate based on contractual price from comparable project. Documentation included in Appendix A.

## **6. Environmental and Cultural Resources Compliance**

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The following section summarizes SWID's approach to avoid, minimize, and mitigate any potential environmental impacts related to the Energy Efficiency Improvement to Kimberlina Recharge Facility. The District understands that ground disturbing activities shall not occur until Reclamation concludes environmental compliance review and provides a Notice to Proceed. The following paragraphs address the specific questions posted in the Environmental and Cultural Resources Compliance section of the NOFO.

As the wells discussed in this Project are covered under an existing environmental document prepared for the Kimberlina Spreading Ground Project, it is assumed that Reclamation will allow a Categorical Exclusion to satisfy the National Environmental Policy Act (NEPA) requirements.

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

The existing environmental assessment (EA) under California Environmental Quality Act (CEQA) included studies on the impacts to the surrounding environment, including water resources, biological resources, land use, cultural resources, air quality, global climate change, and socioeconomic resources. EA findings concluded that the proposed Project would not considerably contribute to cumulative water quality effects in the region; would result in an increase in the District's water supply reliability and improve groundwater conditions; and would contribute to beneficial cumulative effects in regards to socioeconomic, environmental justice, air quality and groundwater resources resulting from increased local water supply reliability.

With regards to biological resources, the EA provided detailed analysis on special-status species and habitats that are potentially located within the biological study area. The study concluded that no special-status species would be impacted, as there is not suitable habitat present within the biological study area. The proposed action would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species.

### **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?**

There are no special-status species and habitats that are potentially located within the biological study area.

### **Are there wetlands or other surface waters inside the project boundaries that potentially fall under CWA jurisdiction as "Waters of the United States?"**

No.

### **When was the water delivery system constructed?**

The District has been receiving water from the CVP since 1957. CVP water enters the District from two turnouts off the FKC. The existing facilities at the Kimberlina Spreading Grounds were constructed in 2018.

**Will the 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 proposed Project will not alter any existing features of an irrigation system.

**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.**

No.

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

No.

**Will the project have a disproportionately high and adverse effect on low income or minority populations?**

No.

**Will the proposed project limit access to and ceremonial use of Indian sacred sites or result in other impacts or tribal lands?**

No.

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

No.

## **7. Required Permits or Approvals**

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This project falls under the Class 1 Exemption from CEQA per California Code of Regulations section 14 CCR § 15301, Existing Facilities. Because the proposed project involves negligible or no expansion of use, it falls under the Class 1 Exemption from CEQA.

Any permits determined to be necessary during the design phase and procurement process will be appropriately obtained by either the selected construction vendor or the District.



## POSO CREEK IRWMP

Management Group

16294 Central Valley Hwy, Wasco, CA 93280  
661-758-5153

Mr. Kris Lawrence  
General Manager  
Shafter-Wasco Irrigation District  
16294 Central Valley Hwy,  
Wasco, CA 93280

Subject: Proposed Project – Energy Efficiency Improvement to Kimberlina Recharge Facility

Dear Mr. Lawrence:

On behalf of the Poso Creek Integrated Regional Water Management Group (Group), of which Shafter-Wasco Irrigation District (Shafter-Wasco, SWID) is a part, I am writing this letter in support of the *Energy Efficiency Improvement to Kimberlina Recharge Facility* (Project). Implementation of the Project will enhance water supply reliability and bolster groundwater blending activities by modernizing well pump functionality within Shafter Wasco's recently constructed spreading grounds. The Project would allow for increased blending capability by achieving as-needed flow reduction to meet local water quality criteria for crop requirements, and long-term sustainability of the well pumps. These benefits are directly aligned with the IRWM Plan's measurable objective to support groundwater activities and will assist in conjunctive use efforts in support of implementation of SGMA. The Group is clearly interested and supportive of this project which will benefit both the Group, SWID, and others within the region.

We hope that our expressions of support are helpful in your efforts to secure grant funding assistance to implement your plans. If the funding agency would like to discuss our interest and support for you project, we would be happy to do so.

Sincerely,

Ram Venkatesan  
Vice Chairman, Poso Creek IRWMP

**RESOLUTION OF THE BOARD OF DIRECTORS OF THE SHAFTER-  
WASCO IRRIGATION DISTRICT**

**IN THE MATTER OF:**

**RESOLUTION 22-06**

**The Official Resolution for adoption by the District's Board of Directors is scheduled for adoption at the District's April 13<sup>th</sup> Board meeting. A draft has been provided below.**

**RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE SHAFTER-WASCO IRRIGATION DISTRICT  
IN THE MATTER OF: ENERGY EFFICIENCY IMPROVEMENT TO SWID's KIMBERLINA  
RECHARGE FACILITY RESOLUTION NO. 22-06**

**IN SUPPORT OF FILING AN APPLICATION WITH THE BUREAU OF  
RECLAMATION FOR A GRANT UNDER THE *WATERSMART GRANTS: SMALL-  
SCALE WATER EFFICIENCY PROJECTS FY 2022***

**WHEREAS**, the Shafter-Wasco Irrigation District (District or Applicant) partnered with several neighboring water districts in January 2006 and formulated an Integrated Regional Water Management Plan (Plan) for their collective area, which was adopted in July 2007 and updated in 2014 and 2019 by each of the districts; and

**WHEREAS**, the Plan identified improving water reliability as a priority and identified the District's water program, expanding supplemental surface water delivery systems, the in-lieu and direct recharge facilities, well extraction and recovery capacity, and projects that regulate water supplies available to the District and its Banking Partners; and

**WHEREAS**, varying yearly water supplies in the Friant-Kern Canal have rendered the District's CVP water less reliable, creating an additional need to regulate supplies when they are available; and

**WHEREAS**, the District's operational flexibility can be improved with the implementation of variable frequency drives to existing monitoring wells; and

**WHEREAS**, benefit to water managers can be gained from energy savings; and

**WHEREAS**, the United States Bureau of Reclamation is currently soliciting proposals for grant funding assistance under their *SMALL-SCALE WATER EFFICIENCY GRANTS FY 2022* (Funding Opportunity No. R22AS00195); and

**WHEREAS**, District Staff has formulated a grant proposal for improvements to the District's well improvement component, referred to as the *Energy Efficiency Improvements to SWID's Kimberlina Recharge Facility*.



**NOW, THEREFORE, BE IT RESOLVED** by the Board of Directors of the APPLICANT as follows:

- a. The District's General Manager, Kris Lawrence, or his designee, is directed to submit the grant application and is authorized to enter into an agreement with Reclamation on behalf of Shafter-Wasco Irrigation District for grant funding under Reclamation's Small-Scale Water Efficiency Projects Grant (RA22AS00195);
- b. The District's Board of Directors has reviewed and supports the submission of a grant application to Reclamation entitled *Energy Efficiency Improvements to SWID's Kimberlina Recharge Facility*;
- c. The Applicant can provide the amount of funding and in-kind contributions specified in the application; and
- d. The Applicant will work with Reclamation to meet established deadlines for entering into a cooperative agreement.

**ALL THE FOREGOING**, being on motion of Geordy W. Wise, Director and seconded by Benjamin P. Wilson, Director was authorized by the following vote:

**AYES:** Craig Fulwyler, Geordy W. Wise, D. Mark Franz, Benjamin P. Wilson and Randy D. Bloemhof

**NOES:** None

**ASBSENT:** None

**ABSTAIN:** None

**I HEREBY CERTIFY** that I am the Secretary of Shafter-Wasco Irrigation District and that the foregoing resolution was adopted by the Board of Directors of said District at a meeting held on 13th day of April 2022.

**IN WITNESS WHEREOF**, I have set my hand and the seal of said District on this 13th day of April 2022.



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Kris Lawrence, Secretary of the Board of Directors