



# KERN IRWMP

Integrated Regional Water Management Plan

## *Project Submittal Form*

To the extent possible this form should be electronically filled out and e-mailed to:

[KernIRWMP@kcwa.com](mailto:KernIRWMP@kcwa.com).

### **Part 1. Lead Implementing Agency/Organizational Information**

Please provide the following information regarding the project sponsor and proposed project.

**Implementing Agency/ Organization / Individual:**

Kern County Water Agency – Improvement District No. 4

**Agency / Organization / Individual Address:**

P.O. Box 58, Bakersfield, CA 93302

**Possible Partnering Agencies:**

**Name:**

David Beard

**Title:**

Improvement District No. 4 Manager

**Telephone:**

661-634-1493

**Fax:**

661-634-1401

**Email:**

dbeard@kcwa.com

**Website:**

www.kcwa.com

**Project Name:**

Cross Valley Canal Extension Lining Project – Pool No. 8

**Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.**

**Project Latitude:**

**Project Longitude:**

<b>Location Description:</b>	Fiber-reinforced concrete lining will be constructed in Cross Valley Canal (CVC) Extension Pool No. 8 beginning at the CVC Extension siphon near Riverside Drive and 24 <sup>th</sup> Street to the CVC Extension siphon at the Calloway Canal.
------------------------------	---

**Regional Grouping: Identify the Regional Grouping your agency is located in, and the Regional Grouping your project is located in.**

<input checked="" type="checkbox"/> Agency <input checked="" type="checkbox"/> Project	Greater Bakersfield
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Kern County
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Kern County Water Agency
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Kern Fan
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Kern River Valley
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Mountains/Foothills
<input type="checkbox"/> Agency <input type="checkbox"/> Project	North County
<input type="checkbox"/> Agency <input type="checkbox"/> Project	South County
<input type="checkbox"/> Agency <input type="checkbox"/> Project	West Side

**Project Cooperating Agency(ies)/Organization(s)/Individual(s):**

• Kern County Water Agency
• Cawelo Water District
•
•

**Project Status (e.g., new, ongoing, expansion, new phase):**

New phase (Phase II) of the CVC Extension Lining Project
--

## **Part 2. Project Need**

**It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Tulare Lake Basin Portion of Kern County Region.**

**Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.**

Improvement District No. 4 (ID4) is a CVC participant and utilizes its CVC capacity to convey State Water Project (SWP) water from the California Aqueduct as a supplemental water supply to the metropolitan Bakersfield area. The supplemental supply is delivered through the concrete-lined CVC and earthen CVC extension for replenishment of the underlying aquifer through direct recharge in the Kern River channel and/or to the Henry C. Garnett Water Purification Plant for treatment and delivery to ID4 purveyors. Deliveries to ID4 purveyors provide an in-lieu recharge benefit to the underlying aquifer. ID4 purveyors are the California Water Service Company, the City of Bakersfield, East Niles Community Services District and North of the River Municipal Water District, which wholesales water to Oildale Mutual Water Company.

The Department of Water Resources (DWR) produces a Delivery Capability Report (Report) for SWP contractors to use as a planning tool for future water supplies. The 2015 Report shows that, on average, ID4 may expect to receive 61 percent of its total Table A amount of 82,946 acre-feet (af) on an annual basis. The reduction in SWP deliveries requires ID4 to utilize its capacity in local groundwater banking programs to supplement available surface water supplies as they are delivered for in-district uses. Additionally, seepage occurs as water is conveyed through the earthen CVC Extension, increasing the amount of water recovered from groundwater banking programs to meet demand.

The CVC Extension Lining Project – Pool No. 8 (Project) includes construction of 5,280 lineal feet of fiber-reinforced concrete lining on the existing earthen canal to reduce seepage and improve water conveyance reliability, increasing the overall reliability of drinking water supplies to the metropolitan Bakersfield area.

### **Part 3. Project Description**

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

The Project includes construction of 5,280 lineal feet of fiber-reinforced concrete lining on an existing earthen canal to reduce seepage and improve water conveyance reliability. The estimated reduction in seepage is 2,100 af/year (afy). In dry years the conserved water will be conveyed to the Henry C. Garnett Water Purification Plant for delivery to ID4 water purveyors. In normal and wet years a volume of water equivalent to the conserved seepage will be available to be diverted to the Kern River channel or local groundwater banks for recharge and habitat enhancement. Conserved water may also be available for water management programs with other agencies in the Kern County region. Energy savings will be realized, and greenhouse gas emissions reduced, by eliminating the need to replace seepage through groundwater recovery.

**If applicable, list surface water bodies and groundwater basins associated with the proposed project:**

<ul style="list-style-type: none"><li>• San Joaquin Valley Groundwater Basin - Kern County Subbasin</li></ul>
<ul style="list-style-type: none"><li>• Kern River</li></ul>
<ul style="list-style-type: none"><li>• Sacramento-San Joaquin Delta</li></ul>
<ul style="list-style-type: none"><li>•</li></ul>

**Please identify up to three available documents which contain information specific to the proposed project:**

<ul style="list-style-type: none"> <li>Initial Study and Mitigated Negative Declaration for the Cross Valley Canal Extension Lining</li> </ul>
<ul style="list-style-type: none"> <li>Environmental Assessment for the Kern County Water Agency Improvement District No. 4 Cross Valley Canal Extension – Pool No. 8 Lining Project</li> </ul>
<ul style="list-style-type: none"> <li>WaterSMART: Water and Energy Efficiency Grant Application – Cross Valley Canal Extension Lining Project Pool No. 8</li> </ul>

<b>Is the proposed project an element or phase of a regional or larger program?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes, please identify the program</b>	<u>Cross Valley Canal Extension Lining Project</u>
<b>Design life of the Project</b>	<u>50 years</u>
<b>Proposed Construction/Implementation Start Date:</b>	<u>February 2020</u>
<b>Proposed Construction/Implementation Completion Date</b>	<u>December 2020</u>
<b>Ready for Construction Bid</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA

<b>Item</b>	<b>Status (e.g., not initiated, in process, complete)</b>	<b>Date</b>
Conceptual Plans	<u>Complete</u>	12/31/2014
Land Acquisition/ Easements	<u>Complete</u>	06/30/2016
Preliminary Plans	<u>Complete</u>	01/31/2016
CEQA/NEPA	<u>Complete</u>	12/16/2015 CEQA 04/15/2018 NEPA
Permits	<u>Not initiated</u>	
Construction Drawings	<u>In Process</u>	03/31/2019

**For projects that do not include construction, please briefly describe the project readiness-to-proceed.**

--

**Part 4. Project Benefits**

**Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits.**

Major Project benefits will include:

- Conservation of water through reduction in canal seepage;
- Elimination of the need to recover seeped water through groundwater wells resulting in energy and cost savings;
- Reduction in greenhouse gas emissions through energy savings;
- Improved water conveyance reliability due to lower potential for canal breaches and higher surface water deliveries in dry years;
- Conserved water and improved conveyance facility to facilitate water management programs; and
- Increased diversions into the Kern River channel and groundwater banks in normal and wet years for groundwater recharge and habitat enhancement.

Project beneficiaries will be ID4 and ID4 water purveyors. The Project will conserve water and reduce operational costs. The Kern County sub-basin will also benefit from reduced groundwater demands in dry and critically dry years. Property owners adjacent to the canal will benefit from a lower risk of canal breaching and flooding. Lastly, ID4 will have additional flexibility to pursue beneficial water management programs with other agencies.

**Please describe the dominant existing land use type for the proposed project location.**

Current land use is an earthen canal.

**Please describe the dominant existing land use type for areas upstream and downstream of the proposed project location**

Upstream: Concrete-lined canal.

Downstream: Earthen canal, water purification plant and concrete-lined canal.

**Does the project address any known environmental justice issues?**

Yes                                       No                                       Not Sure

**Is the project located within or adjacent to a disadvantaged community?**

Yes                                       No                                       Not Sure

**Does the project include disadvantaged community participation?**

Yes                                       No                                       Not Sure

**If yes, please identify the group or organization:** \_\_\_\_\_

**Please provide the following project benefit information for all applicable components of the proposed project. Benefit categories include things such as water quality / flood management, water supply, and resource stewardship. PLEASE ATTEMPT TO SUPPLY ALL INFORMATION RELEVANT TO YOUR PROJECT. THIS INFORMATION WILL BE USED TO ANALYZE AND ASSESS PROJECT FOR FUTURE FUNDING.**

**WATER QUALITY BENEFITS / FLOOD MANAGEMENT BENEFITS**

<b>Water Quality Benefit Information</b>	
Treatment technologies	_____
Design operational treatment capacity (million gallons/day)	_____
Targeted Contaminants (Check all that apply):	
<input type="checkbox"/> Chloride <input type="checkbox"/> Nitrogen Compounds <input type="checkbox"/> Coliform Bacteria <input type="checkbox"/> Other (describe): _____	
<b>Flood Management Benefit Information</b>	
Maximum volume of temporary storage of storm runoff (acre-feet)	_____
Maximum increased conveyance capacity (cubic feet/second)	_____
Estimated area benefiting from flood damage reduction (acres)	_____
Estimated level of flood protection resulting from project implementation	_____
Estimated annual value of flood damage reduction provided by project (\$/year)	_____
Acreage required for project implementation	_____

**WATER SUPPLY BENEFITS**

**Project information provided will help to quantify water supply benefits from enhanced local water supply or reduced potable water demand.**

Enhanced Water Supply or Demand Reduction Benefit Information			
<b>Source of Increased Supply or Demand Reduction</b>			
<input type="checkbox"/> Groundwater	<input type="checkbox"/> Groundwater treatment	<input type="checkbox"/> Increased surface water storage	
<input type="checkbox"/> Recycled water	<input checked="" type="checkbox"/> Conservation/ water use efficiency	<input type="checkbox"/> Ocean desalination	
<input type="checkbox"/> Transfer	<input type="checkbox"/> Other (describe): _____		
Type of enhanced supply or demand reduction: Conservation of canal seepage			
Annual Yield of Supply (acre-feet): 2,100 afy			
<b>Availability by Water-Year Type (acre-feet per year):</b>			
Average Year	<u>2,100 afy</u>		
Dry Year	<u>2,100 afy</u>		
Wet Year	<u>2,100 afy</u>		
<b>Availability by Season (check all that apply):</b>			
<input checked="" type="checkbox"/> Summer	<input checked="" type="checkbox"/> Fall	<input checked="" type="checkbox"/> Spring	<input checked="" type="checkbox"/> Winter
<b>Does the project have the potential to displace demands on the Bay/Delta/Estuary?</b>			
<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Not Sure	



**For projects that include detention and groundwater recharge, please complete the following:**

How many acres of land drain into this detention basin? (acres)	_____
Detention Basin area (acres)	_____
Detention basin max. operational depth (ft.)	_____
% of basin covered by wetlands	_____
Soil type	_____
If other than infiltration, identify method (e.g., injection) and recharge (acre-feet/year)	_____
Estimated basin annual inflow (acre-feet/year)	_____
Estimated basin annual outflow (acre-feet/year)	_____

**RESOURCE STEWARDSHIP BENEFITS**

**Project information provided will help to quantify the benefits associated with projects related to resource stewardship and land management.**

Non-treatment wetland area (acres)	_____
Treatment wetland area (acres)	_____
Riparian habitat area (acres)	_____
Non-developed open space area (acres)	_____
Multiple use/ recreation area (acres) – additionally, select the type of multiple use / recreation and associated acres by type:	
Single Sport Athletics	_____
Multiple Sport Athletics Acres	_____
Other Recreation Acres	_____
Pedestrian Trail Acres	_____
Equestrian Trail Acres	_____
Other Passive Activity	_____
Other Acres (describe)	_____
Description	_____
Total Project area (acres)	_____

## **Part 5. Project Cost Estimate**

Project cost information is needed to assist in comparing benefits and cost. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated costs of project implementation and associated funding source(s). These costs should include land purchase/easement, planning/design/engineering, construction/implementation, environmental compliance, administration, and contingency.

<b>Approximate Total Cost</b> <i>(If project costs are variable, please include lower and upper range estimates.)</i>	\$4,543,100
<b>Funding Source</b> <i>(If multiple sources, list each source and the percent or amount funded by each)</i>	WaterSMART Grant: \$1,000,000 (22%) ID4 Enterprise Fund: \$3,543,100 (78%)
<b>Funding Certainty &amp; Longevity</b>	WaterSMART Grant termination 12/31/2020 unless extended
<b>Operations &amp; Maintenance Cost</b> <i>(per year)</i>	\$58,000
<b>Operations &amp; Maintenance Funding Source(s)</b> <i>(i.e., annual budget, grant, etc. If multiple sources, list each source and the percent or amount funded by each.)</i>	ID4 Enterprise Fund (annual budget)
<b>Operations &amp; Maintenance Funding Certainty</b> <i>(i.e., already included in organization's budget, contingent upon grant, etc.)</i>	Already included in annual budget

**Part 6. Regional Objectives**

Indicate below whether the project meets any of the Kern IRWMP regional objectives. Where necessary/appropriate, please provide a brief explanation as to how the Project meets the regional objective.

Kern IRWMP Objectives	Does the project meet the objective?		Comments/Explanation
	Yes	No	
<b>Increase Water Supply (WS)</b>			
1. Through cooperation and collaboration with other regions restore water supplies to levels that will mitigate for water lost from the region and eliminate overdraft	x		Reduction of recovered groundwater to augment surface supplies in dry years.
2. Pursue and implement cost effective water use efficiency programs	x		Reduction of canal seepage.
3. Increase water storage capacity in the region by increasing recharge acreage and expanding groundwater banking programs before all prime recharge land has been developed		x	
4. Integrate management of water banking facilities to maximize conjunctive use over the planning horizon		x	
5. Increase/augment water supplies to meet region demands	x		Reduction of canal seepage.
<b>Improve Operational Efficiency (OE)</b>			
1. Increase transfers and exchanges flexibility over the planning horizon	x		Increase feasibility to implement exchanges.
2. Create tools to re-regulate water supplies within the region, including storage, storm flows, and operational flows over the planning horizon		x	
3. Increase distribution efficiencies and reduce energy usage over the planning horizon	x		Reduction of recovered groundwater to augment surface supplies in dry years.
4. Increase the use of alternate energy sources (e.g. solar)		x	
5. Replace aging infrastructure to reduce system water losses, improve operational efficiencies, and reduce service interruptions	x		Increase in conveyance reliability with concrete-lined canal.
6. Increase the use of recycled water for direct reuse within the Kern Region		x	
7. Optimize local management of water resources to improve water supply reliability over the planning horizon	x		Increase feasibility to implement exchanges and reduction of recovered groundwater to augment surface supplies in dry years.

8. Increase pool of qualified candidates to operate water and wastewater systems	x	
<b>Improve Water Quality (WQ)</b>		
1. Monitor and/or manage headwaters/areas of origin, natural streams, and recharge areas to prevent or mitigate contamination	x	
2. Identify and preserve prime recharge areas in the Kern fan area and other areas	x	
3. Improve water quality for disadvantaged communities and the watershed over the planning horizon	x	
4. Continue to provide drinking water that meets or exceeds water quality standards; and support efforts to attain appropriate standards throughout the planning horizon	x	Increase in conveyance reliability with concrete-lined canal for deliveries to Henry C. Garnett Water Purification Plant.
5. Maximize the use of lesser quality water for appropriate uses (landscaping, certain ag crops, “aesthetic” projects) throughout the planning horizon	x	
6. Coordinate and enhance aquatic pest control efforts from this point forward	x	
<b>Promote Land Use Planning and Resource Stewardship (LU)</b>		
1. Promote stewardship of the Kern River by applying appropriate measures in various reaches of the river from this point forward	x	
2. Encourage the removal of non-native invasive plant species that affect water quality, reliability, and operations	x	
3. Identify and promote the regeneration and restoration of native riparian habitat	x	
4. Coordinate agricultural and urban water suppliers to more effectively address land use planning issues from this point forward	x	
5. Improve the linkage between land use planning and water supply in the region throughout the planning horizon	x	
6. Increase educational opportunities to improve public awareness of water supply, conservation, and water quality issues throughout the planning horizon	x	
7. Improve and coordinate integrated land use planning to support stewardship of environmental resources, such as the Kern River and Kern Fan, and integrate with habitat conservation plans and other ongoing planning efforts from this point forward	x	

8. Preserve and improve ecosystem/watershed health throughout the planning horizon	x	
<b>Improve Regional Flood Management (FM)</b>		
1. Improve regional flood management by addressing preparedness, response, and post flood actions throughout the planning horizon	x	
2. Reduce the effects of poor quality runoff throughout the planning horizon	x	
3. Identify and promote innovative flood management projects to protect vulnerable areas	x	
4. Plan new developments to minimize flood impacts from this point forward	x	



# KERN IRWMP

Integrated Regional Water Management Plan

## *Project Submittal Form*

To the extent possible this form should be electronically filled out and e-mailed to:

[KernIRWMP@kcwa.com](mailto:KernIRWMP@kcwa.com).

### **Part 1. Lead Implementing Agency/Organizational Information**

Please provide the following information regarding the project sponsor and proposed project.

**Implementing Agency/ Organization / Individual:**

City of Bakersfield - Water Resources Department

**Agency / Organization / Individual Address:**

1000 Buena Vista Road, Bakersfield, CA 93311

**Possible Partnering Agencies:**

California Water Service

**Name:**

Art Chianello

**Title:**

Water Resources Manager

**Telephone:**

661-326-3715

**Fax:**

661-852-2127

**Email:**

achianel@bakersfieldcity.us

**Website:**

www.bakersfieldcity.us

**Project Name:**

Water Conservation Project for City of Bakersfield Domestic Water Service Area

**Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.**

**Project Latitude:**

**Project Longitude:**

<b>Location Description:</b>	Project would be located throughout the City of Bakersfield Domestic Water Service area.
------------------------------	--

**Regional Grouping: Identify the Regional Grouping your *agency* is located in, and the Regional Grouping your *project* is located in.**

<input checked="" type="checkbox"/> Agency <input checked="" type="checkbox"/> Project	Greater Bakersfield
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Kern County
<input type="checkbox"/> Agency <input checked="" type="checkbox"/> Project	Kern County Water Agency
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Kern Fan
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Kern River Valley
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Mountains/Foothills
<input type="checkbox"/> Agency <input type="checkbox"/> Project	North County
<input type="checkbox"/> Agency <input type="checkbox"/> Project	South County
<input type="checkbox"/> Agency <input type="checkbox"/> Project	West Side

**Project Cooperating Agency(ies)/Organization(s)/Individual(s):**

<ul style="list-style-type: none"> <li>California Water Service Co.</li> </ul>

**Project Status (e.g., new, ongoing, expansion, new phase):**

Ongoing
---------

## **Part 2. Project Need**

**It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Tulare Lake Basin Portion of Kern County Region.**

**Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.**

The 2009 California legislative package (Senate Bill 7X7) requires a statewide 20% reduction in urban per capita water use by 2020. It requires that urban water retail suppliers determine baseline water use and set reduction targets according to specified requirements.

This legislation affects several Metropolitan Bakersfield area water purveyors. According to State law, urban retail water suppliers (3000 service connections or sales of 3000 acre feet per year) must determine their base per capita water use and develop water use reduction targets using one of four specified methods. Also, urban retail water suppliers must monitor and report compliance on an individual or regional basis. Individual urban retail water suppliers are not required to achieve a reduction in urban per capita water use greater than 20 percent. Compliance is required for continued state water grants and loan eligibility. After 2021, failure of urban retail water suppliers to meet their targets establishes a violation of law for administrative or judicial proceedings.

In order to remain in compliance with State law, and to more responsibly manage our groundwater, Kern River surface water supplies, and other State and Federal water supplies used for domestic water purposes in the Metropolitan Bakersfield area, the City of Bakersfield Water Resources Department is proposing to partner with other local water purveyors to develop an area wide Water Conservation project.



### **Part 3. Project Description**

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

For the proposed project, various water purveyors within the Bakersfield Metropolitan area would choose which water conservation measures they would implement for their particular system. As stated in the 2015 Urban Water Management Plan guidebook, there are several demand management measures (DMMs) that could be implemented. The guidebook lists the following:

(A) water survey programs for single-family residential and multifamily residential customers; (B) residential plumbing retrofit; (C) system water audits, leak detection, and repair; (D) metering with commodity rates for all new connections and retrofit of existing connections; (E) large landscape conservation programs and incentives; (F) high-efficiency washing machine rebate programs; (G) public information programs; (H) school education programs; (I) conservation programs for commercial, industrial, and institutional accounts; (J) wholesale agency programs; (K) conservation pricing; (L) water conservation coordinator; (M) water waste prohibition; (N) residential ultra-low flush toilet replacement programs.

Other DMM's could also be implemented if they were deemed to be effective in promoting water conservation in the area.

Participating water purveyors would implement a regional program incorporating one or more of the DMM's listed above within a few months of receiving grant money as well.

**If applicable, list surface water bodies and groundwater basins associated with the proposed project:**

<ul style="list-style-type: none"><li>• Kern River surface water supply</li></ul>
<ul style="list-style-type: none"><li>• Groundwater underlying City of Bakersfield Metropolitan area (Tulare Basin)</li></ul>
<ul style="list-style-type: none"><li>• State Project water</li></ul>
<ul style="list-style-type: none"><li>• Central Valley Project water</li></ul>

**Please identify up to three available documents which contain information specific to the proposed project:**

<ul style="list-style-type: none"><li>• Urban Water Management Plans (2015) for water purveyors</li></ul>
<ul style="list-style-type: none"><li>• 2015 Urban Water Management Plan Guidebook</li></ul>
<ul style="list-style-type: none"><li>• Kern IRWMP</li></ul>

<b>Is the proposed project an element or phase of a regional or larger program?</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>If yes, please identify the program</b>	_____
<b>Design life of the Project</b>	<u>N/A</u>
<b>Proposed Construction/Implementation Start Date:</b>	<u>N/A</u>
<b>Proposed Construction/Implementation Completion Date</b>	<u>N/A</u>
<b>Ready for Construction Bid</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> NA

Item	Status (e.g., not initiated, in process, complete)	Date
Conceptual Plans	<u>N/A</u>	(mm/dd/yyyy)
Land Acquisition/ Easements	<u>N/A</u>	(mm/dd/yyyy)
Preliminary Plans	<u>N/A</u>	(mm/dd/yyyy)
CEQA/NEPA	<u>N/A</u>	(mm/dd/yyyy)
Permits	<u>N/A</u>	(mm/dd/yyyy)
Construction Drawings	<u>N/A</u>	(mm/dd/yyyy)

**For projects that do not include construction, please briefly describe the project readiness-to proceed.**

When grant funding is made available, all of the water purveyors involved in the proposed project could proceed in a short time frame. The City of Bakersfield could work with Cal Water to implement a program within a few months of receiving grant funds.

#### **Part 4. Project Benefits**

**Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits.**

In Metropolitan Bakersfield area, water conservation is extremely important, and will become much more critical for future urban and agricultural uses. With State Water supplies becoming less reliable, and with the potential of climate change, local Kern River water supplies could become less reliable. Also, local groundwater levels are decreasing due to overdraft. One reasonable method to shore up water supplies and decrease our dependency on groundwater is to implement water conservation for urban users.

**Please describe the dominant existing land use type for the proposed project location.**

The primary land use type that this proposed project would benefit is residential. Residential units, both single-family and multi-family make up for the largest percentage of water usage within the City.

**Please describe the dominant existing land use type for areas upstream and downstream of the proposed project location**

Upstream: N/A

Downstream: N/A

**Does the project address any known environmental justice issues?**

Yes  No  Not Sure

**Is the project located within or adjacent to a disadvantaged community?**

Yes  No  Not Sure

**Does the project include disadvantaged community participation?**

Yes  No  Not Sure

**If yes, please identify the group or organization: \_\_\_\_\_**

**Please provide the following project benefit information for all applicable components of the proposed project. Benefit categories include things such as water quality / flood management, water supply, and resource stewardship. PLEASE ATTEMPT TO SUPPLY ALL INFORMATION RELEVANT TO YOUR PROJECT. THIS INFORMATION WILL BE USED TO ANALYZE AND ASSESS PROJECT FOR FUTURE FUNDING.**

**WATER QUALITY BENEFITS / FLOOD MANAGEMENT BENEFITS**

<b>Water Quality Benefit Information</b>	
Treatment technologies	<u>N/A</u>
Design operational treatment capacity (million gallons/day)	<u>N/A</u>
Targeted Contaminants (Check all that apply):	
<input type="checkbox"/> Chloride <input type="checkbox"/> Nitrogen Compounds <input type="checkbox"/> Coliform Bacteria <input type="checkbox"/> Other (describe): _____	
<b>Flood Management Benefit Information</b>	
Maximum volume of temporary storage of storm runoff (acre-feet)	<u>N/A</u>
Maximum increased conveyance capacity (cubic feet/second)	<u>N/A</u>
Estimated area benefiting from flood damage reduction (acres)	<u>N/A</u>
Estimated level of flood protection resulting from project implementation	<u>N/A</u>
Estimated annual value of flood damage reduction provided by project (\$/year)	<u>N/A</u>
Acreage required for project implementation	<u>N/A</u>

**WATER SUPPLY BENEFITS**

**Project information provided will help to quantify water supply benefits from enhanced local water supply or reduced potable water demand.**

Enhanced Water Supply or Demand Reduction Benefit Information		
<b>Source of Increased Supply or Demand Reduction</b>		
<input checked="" type="checkbox"/> Groundwater	<input checked="" type="checkbox"/> Groundwater treatment	<input type="checkbox"/> Increased surface water storage
<input type="checkbox"/> Recycled water	<input checked="" type="checkbox"/> Conservation/ water use efficiency	<input type="checkbox"/> Ocean desalination
<input type="checkbox"/> Transfer	<input checked="" type="checkbox"/> Other (describe): Surface Water supplies from the Kern River, State Water Project, Central Valley Project	
Type of enhanced supply or demand reduction: <u>Water Conservation</u>		
Annual Yield of Supply (acre-feet): <u>30,000 acre-feet per year (estimated)</u>		
<b>Availability by Water-Year Type (acre-feet per year):</b>		
Average Year	<u>Estimated to be equal demand reduction in all types of years.</u>	
Dry Year		
Wet Year		
<b>Availability by Season (check all that apply):</b>		
<input checked="" type="checkbox"/> Summer	<input checked="" type="checkbox"/> Fall	<input checked="" type="checkbox"/> Spring <input checked="" type="checkbox"/> Winter
<b>Does the project have the potential to displace demands on the Bay/Delta/Estuary?</b>		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Not Sure

**For projects that include detention and groundwater recharge, please complete the following:**

How many acres of land drain into this detention basin? (acres)	<u>N/A</u>
Detention Basin area (acres)	<u>N/A</u>
Detention basin max. operational depth (ft.)	<u>N/A</u>
% of basin covered by wetlands	<u>N/A</u>
Soil type	<u>N/A</u>
If other than infiltration, identify method (e.g., injection) and recharge (acre-feet/year)	<u>N/A</u>
Estimated basin annual inflow (acre-feet/year)	<u>N/A</u>
Estimated basin annual outflow (acre-feet/year)	<u>N/A</u>

**RESOURCE STEWARDSHIP BENEFITS**

**Project information provided will help to quantify the benefits associated with projects related to resource stewardship and land management.**

Non-treatment wetland area (acres)	<u>N/A</u>
Treatment wetland area (acres)	<u>N/A</u>
Riparian habitat area (acres)	<u>N/A</u>
Non-developed open space area (acres)	<u>N/A</u>
Multiple use/ recreation area (acres) – additionally, select the type of multiple use / recreation and associated acres by type:	
Single Sport Athletics	<u>N/A</u>
Multiple Sport Athletics Acres	<u>N/A</u>
Other Recreation Acres	<u>N/A</u>
Pedestrian Trail Acres	<u>N/A</u>
Equestrian Trail Acres	<u>N/A</u>
Other Passive Activity	<u>N/A</u>
Other Acres (describe)	<u>N/A</u>
Description	<u>N/A</u>
Total Project area (acres)	<u>N/A</u>

## **Part 5. Project Cost Estimate**

Project cost information is needed to assist in comparing benefits and cost. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated costs of project implementation and associated funding source(s). These costs should include land purchase/easement, planning/design/engineering, construction/implementation, environmental compliance, administration, and contingency.

<b>Approximate Total Cost</b> <i>(If project costs are variable, please include lower and upper range estimates.)</i>	<b>\$100,000</b>
<b>Funding Source</b> <i>(If multiple sources, list each source and the percent or amount funded by each)</i>	<b>Proposition 1</b>
<b>Funding Certainty &amp; Longevity</b>	<b>As Available</b>
<b>Operations &amp; Maintenance Cost</b> <i>(per year)</i>	<b>\$0</b>
<b>Operations &amp; Maintenance Funding Source(s)</b> <i>(i.e., annual budget, grant, etc. If multiple sources, list each source and the percent or amount funded by each.)</i>	<b>\$0</b>
<b>Operations &amp; Maintenance Funding Certainty</b> <i>(i.e., already included in organization's budget, contingent upon grant, etc.)</i>	<b>\$0</b>



**Part 6. Regional Objectives**

Indicate below whether the project meets any of the Kern IRWMP regional objectives. Where necessary/appropriate, please provide a brief explanation as to how the Project meets the regional objective.

Kern IRWMP Objectives	Does the project meet the objective?		Comments/Explanation
	Yes	No	
<b>Increase Water Supply (WS)</b>			
1. Through cooperation and collaboration with other regions restore water supplies to levels that will mitigate for water lost from the region and eliminate overdraft	Yes		
2. Pursue and implement cost effective water use efficiency programs	Yes		
3. Increase water storage capacity in the region by increasing recharge acreage and expanding groundwater banking programs before all prime recharge land has been developed	No		
4. Integrate management of water banking facilities to maximize conjunctive use over the planning horizon	No		
5. Increase/augment water supplies to meet region demands	Yes		
<b>Improve Operational Efficiency (OE)</b>			
1. Increase transfers and exchanges flexibility over the planning horizon	No		
2. Create tools to re-regulate water supplies within the region, including storage, storm flows, and operational flows over the planning horizon	No		
3. Increase distribution efficiencies and reduce energy usage over the planning horizon	Yes		
4. Increase the use of alternate energy sources (e.g. solar)	No		
5. Replace aging infrastructure to reduce system water losses, improve operational efficiencies, and reduce service interruptions	Yes		
6. Increase the use of recycled water for direct reuse within the Kern Region	No		
7. Optimize local management of water resources to improve water supply reliability over the planning horizon	Yes		

8. Increase pool of qualified candidates to operate water and wastewater systems	No	
<b>Improve Water Quality (WQ)</b>		
1. Monitor and/or manage headwaters/areas of origin, natural streams, and recharge areas to prevent or mitigate contamination	No	
2. Identify and preserve prime recharge areas in the Kern fan area and other areas	No	
3. Improve water quality for disadvantaged communities and the watershed over the planning horizon	No	
4. Continue to provide drinking water that meets or exceeds water quality standards; and support efforts to attain appropriate standards throughout the planning horizon	No	
5. Maximize the use of lesser quality water for appropriate uses (landscaping, certain ag crops, “aesthetic” projects) throughout the planning horizon	No	
6. Coordinate and enhance aquatic pest control efforts from this point forward	No	
<b>Promote Land Use Planning and Resource Stewardship (LU)</b>		
1. Promote stewardship of the Kern River by applying appropriate measures in various reaches of the river from this point forward	No	
2. Encourage the removal of non-native invasive plant species that affect water quality, reliability, and operations	No	
3. Identify and promote the regeneration and restoration of native riparian habitat	No	
4. Coordinate agricultural and urban water suppliers to more effectively address land use planning issues from this point forward	No	
5. Improve the linkage between land use planning and water supply in the region throughout the planning horizon	No	
6. Increase educational opportunities to improve public awareness of water supply, conservation, and water quality issues throughout the planning horizon	Yes	
7. Improve and coordinate integrated land use planning to support stewardship of environmental resources, such as the Kern River and Kern Fan, and integrate with habitat conservation plans and other ongoing planning efforts from this point forward	No	

8. Preserve and improve ecosystem/watershed health throughout the planning horizon	No	
<b>Improve Regional Flood Management (FM)</b>		
1. Improve regional flood management by addressing preparedness, response, and post flood actions throughout the planning horizon	No	
2. Reduce the effects of poor quality runoff throughout the planning horizon	No	
3. Identify and promote innovative flood management projects to protect vulnerable areas	No	
4. Plan new developments to minimize flood impacts from this point forward	No	



# KERN IRWMP

Integrated Regional Water Management Plan

## *Project Submittal Form*

To the extent possible this form should be electronically filled out and e-mailed to:

[KernIRWMP@kcwa.com](mailto:KernIRWMP@kcwa.com).

### **Part 1. Lead Implementing Agency/Organizational Information**

Please provide the following information regarding the project sponsor and proposed project.

**Implementing Agency/ Organization / Individual:**

City of Bakersfield – Water Resources Department

**Agency / Organization / Individual Address:**

1000 Buena Vista Road, Bakersfield, CA 93311

**Possible Partnering Agencies:**

**Name:**

Art Chianello

**Title:**

Water Resources Manager

**Telephone:**

661-326-3715

**Fax:**

661-852-2127

**Email:**

achianel@bakersfieldcity.us

**Website:**

www.bakersfieldcity.us

**Project Name:**

River Canal Weir Restoration and Expansion Project

**Either the latitude/longitude or a location description is required. To determine the latitude/longitude, use the closest address or intersection. If the project is linear, use the furthest upstream latitude/longitude.**

**Project Latitude:**

**Project Longitude:**

<b>Location Description:</b>	Within the Kern River at Coffee Road in Bakersfield, CA
------------------------------	---

**Regional Grouping: Identify the Regional Grouping your agency is located in, and the Regional Grouping your project is located in.**

<input checked="" type="checkbox"/> Agency <input checked="" type="checkbox"/> Project	Greater Bakersfield
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Kern County
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Kern County Water Agency
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Kern Fan
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Kern River Valley
<input type="checkbox"/> Agency <input type="checkbox"/> Project	Mountains/Foothills
<input type="checkbox"/> Agency <input type="checkbox"/> Project	North County
<input type="checkbox"/> Agency <input type="checkbox"/> Project	South County
<input type="checkbox"/> Agency <input type="checkbox"/> Project	West Side

**Project Cooperating Agency(ies)/Organization(s)/Individual(s):**

<ul style="list-style-type: none"> <li>• City of Bakersfield – Water Resources Department</li> </ul>
<ul style="list-style-type: none"> <li>• Buena Vista Water Storage District</li> </ul>
<ul style="list-style-type: none"> <li>• Kern County Water Agency</li> </ul>
<ul style="list-style-type: none"> <li>• Rosedale-Rio Bravo Water Storage District</li> </ul>
<ul style="list-style-type: none"> <li>• Kern Delta Water District</li> </ul>
<ul style="list-style-type: none"> <li>• Kern Water Bank Authority</li> </ul>
<ul style="list-style-type: none"> <li>• Friant Water Authority</li> </ul>

**Project Status (e.g., new, ongoing, expansion, new phase):**

Expansion
-----------

## **Part 2. Project Need**

It is important to understand the need(s) or issue(s) that the proposed project will address and the benefits that it will provide. Information provided in this section defines the need(s) or issue(s) that the proposed project will address and will help to catalog existing need(s) or issue(s) in the Tulare Lake Basin Portion of Kern County Region.

Please provide a 1-2 paragraph description of the need(s) or problem(s) that the project will address. As applicable, discuss the water supply need, operational efficiency need, water quality need, or resource stewardship need (e.g. ecosystem restoration, floodplain management) need. Discuss critical impacts that will occur if the proposal is not implemented.

Currently as designed, the River Canal Weir along the Kern River has a maximum flow capacity of 2,000 cubic feet per second (cfs). During high flow events, typically every five (5) to ten (10) years, flows along the Kern River at this location exceed 2,000 cfs. In order to safely pass these high flows, the sand plug adjacent to the weir is removed, allowing the high flows to bypass the weir. This defeats the function of the weir, which is to control the flow and to backup river water into the nearby Kern River Canal. Essentially, control of the Kern River at this location and downstream is lost when the sand plug is removed.

The proposed River Canal Weir Restoration and Expansion Project will restore and expand the existing forty (40) year old structure to increase flow capacity. Increased capacity of the weir will allow for the better control of Kern River flows and subsequent increased water recharge in water banking areas. Thus, benefitting the City and the cooperating agencies to recharge additional water. Recharging more water locally benefits the Tulare Lake Basin.

### **Part 3. Project Description**

A general description of the proposed project is needed. This section will provide information associated with the project concept, general project information, and readiness to proceed. It is recognized that much of the requested information may not be available for projects that are at a conceptual level of project development. We appreciate and need your ideas.

Please provide a 1-2 paragraph description of the project including the general project concept, what will be constructed/implemented, how the constructed project will function, and treatment methods, as appropriate.

The proposed River Canal Weir Restoration and Expansion Project will restore and expand the existing structure. The intent is to double the capacity of the weir. Two alternatives are considered. One alternative is to restore and upgrade the existing weir and construct a new weir of similar design immediately adjacent to the existing weir. The existing structure is a simple board bay weir with twelve separate bays of varying width, averaging sixty (60) inches.

The other alternative is to demolish the existing weir and reconstruct a new one with the desired capacity. The new weir in this alternative is proposed to be of similar design to the Calloway Weir upstream of the River Canal Weir. The benefits of this type of weir allows for better control of water and sediment by use of gates allowing for water to flow underneath the gates or above the gates. A cost benefit analysis will need to be performed to determine the best alternative.

**If applicable, list surface water bodies and groundwater basins associated with the proposed project:**

<ul style="list-style-type: none"><li>• Kern River</li></ul>
<ul style="list-style-type: none"><li>• State Water Project via the Central Valley Canal</li></ul>
<ul style="list-style-type: none"><li>• Central Valley Project via the Friant-Kern Canal</li></ul>
<ul style="list-style-type: none"><li>• Tulare Lake Basin</li></ul>

**Please identify up to three available documents which contain information specific to the proposed project:**

<ul style="list-style-type: none"><li>• Kern River Channel and Maintenance Program EIR</li></ul>
<ul style="list-style-type: none"><li>• Kern River South Levee – Greater Bakersfield, Levee Certification Report</li></ul>
<ul style="list-style-type: none"><li>•</li></ul>

<b>Is the proposed project an element or phase of a regional or larger program?</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes, please identify the program</b>	<u>Kern River Channel and Maintenance Program</u>
<b>Design life of the Project</b>	<u>50+ years</u>
<b>Proposed Construction/Implementation Start Date:</b>	<u>September 1, 2020</u>
<b>Proposed Construction/Implementation Completion Date</b>	<u>March 1, 2021</u>
<b>Ready for Construction Bid</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> NA



<b>Item</b>	<b>Status (e.g., not initiated, in process, complete)</b>	<b>Date</b>
<b>Conceptual Plans</b>	<u>N/A</u>	<b>N/A</b>
<b>Land Acquisition/ Easements</b>	<u>N/A</u>	<u><b>N/A</b></u>
<b>Preliminary Plans</b>	<u><b>Not initiated – Start Date</b></u>	<b>(04/01/2019)</b>
<b>CEQA/NEPA</b>	<u><b>Not initiated – Start Date</b></u>	<b>(04/01/2019)</b>
<b>Permits</b>	<u><b>Not initiated – Start Date</b></u>	<b>(04/01/2019))</b>
<b>Construction Drawings</b>	<u><b>Not initiated – Start Date</b></u>	<b>(11/01/2019)</b>

**For projects that do not include construction, please briefly describe the project readiness-to proceed.**

N/A

**Part 4. Project Benefits**

Please provide a 1-2 paragraph description of the benefit(s) that the project will address. Information provided will be used in the assessment of project benefits.

As described in Part 2 above, the project will provide better control of Kern River water, particularly during wet years, and increase local water recharge in banking areas of Tulare Lake Basin. This will ultimately help groundwater levels in the Tulare basin and help in complying with the Sustainable Groundwater Management Act (SGMA). Higher groundwater levels also help with water quality and pumping costs.

Please describe the dominant existing land use type for the proposed project location.

Flood Plain Primary

Please describe the dominant existing land use type for areas upstream and downstream of the proposed project location

Upstream: Flood Plain Primary/Secondary  
Downstream: Flood Plain Primary/Secondary

Does the project address any known environmental justice issues?  
 Yes                                       No                                       Not Sure

Is the project located within or adjacent to a disadvantaged community?  
 Yes                                       No                                       Not Sure

Does the project include disadvantaged community participation?  
 Yes                                       No                                       Not Sure

If yes, please identify the group or organization: \_\_\_\_\_

**Please provide the following project benefit information for all applicable components of the proposed project. Benefit categories include things such as water quality / flood management, water supply, and resource stewardship. PLEASE ATTEMPT TO SUPPLY ALL INFORMATION RELEVANT TO YOUR PROJECT. THIS INFORMATION WILL BE USED TO ANALYZE AND ASSESS PROJECT FOR FUTURE FUNDING.**

**WATER QUALITY BENEFITS / FLOOD MANAGEMENT BENEFITS**

<b>Water Quality Benefit Information</b>	
Treatment technologies	<u>N/A</u>
Design operational treatment capacity (million gallons/day)	<u>N/A</u>
Targeted Contaminants (Check all that apply):	
<input type="checkbox"/> Chloride <input type="checkbox"/> Nitrogen Compounds <input type="checkbox"/> Coliform Bacteria <input type="checkbox"/> Other (describe): _____	
<b>Flood Management Benefit Information</b>	
Maximum volume of temporary storage of storm runoff (acre-feet)	<u>N/A</u>
Maximum increased conveyance capacity (cubic feet/second)	<u>2,000 cfs</u>
Estimated area benefiting from flood damage reduction (acres)	<u>N/A</u>
Estimated level of flood protection resulting from project implementation	<u>N/A</u>
Estimated annual value of flood damage reduction provided by project (\$/year)	<u>N/A</u>
Acreage required for project implementation	<u>N/A</u>

**WATER SUPPLY BENEFITS**

**Project information provided will help to quantify water supply benefits from enhanced local water supply or reduced potable water demand.**

Enhanced Water Supply or Demand Reduction Benefit Information			
<b>Source of Increased Supply or Demand Reduction</b>			
<input checked="" type="checkbox"/> Groundwater	<input type="checkbox"/> Groundwater treatment	<input type="checkbox"/> Increased surface water storage	
<input type="checkbox"/> Recycled water	<input type="checkbox"/> Conservation/ water use efficiency	<input type="checkbox"/> Ocean desalination	
<input type="checkbox"/> Transfer	<input type="checkbox"/> Other (describe): _____		
Type of enhanced supply or demand reduction: <u>Groundwater</u>			
Annual Yield of Supply (acre-feet): <u>N/A</u>			
<b>Availability by Water-Year Type (acre-feet per year):</b>			
Average Year	<u>0 acre-feet</u>		
Dry Year	<u>0 acre-feet</u>		
Wet Year	<u>100,000 acre-feet</u>		
<b>Availability by Season (check all that apply):</b>			
<input checked="" type="checkbox"/> Summer	<input checked="" type="checkbox"/> Fall	<input checked="" type="checkbox"/> Spring	<input checked="" type="checkbox"/> Winter
<b>Does the project have the potential to displace demands on the Bay/Delta/Estuary?</b>			
<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Not Sure	

**For projects that include detention and groundwater recharge, please complete the following:**

How many acres of land drain into this detention basin? (acres)	_____
Detention Basin area (acres)	_____
Detention basin max. operational depth (ft.)	_____
% of basin covered by wetlands	_____
Soil type	_____
If other than infiltration, identify method (e.g., injection) and recharge (acre-feet/year)	_____
Estimated basin annual inflow (acre-feet/year)	_____
Estimated basin annual outflow (acre-feet/year)	_____

**RESOURCE STEWARDSHIP BENEFITS**

**Project information provided will help to quantify the benefits associated with projects related to resource stewardship and land management.**

Non-treatment wetland area (acres)	_____
Treatment wetland area (acres)	_____
Riparian habitat area (acres)	_____
Non-developed open space area (acres)	_____
Multiple use/ recreation area (acres) – additionally, select the type of multiple use / recreation and associated acres by type:	
Single Sport Athletics	_____
Multiple Sport Athletics Acres	_____
Other Recreation Acres	_____
Pedestrian Trail Acres	<u>X</u>
Equestrian Trail Acres	<u>X</u>
Other Passive Activity	_____
Other Acres (describe)	_____
Description	_____
Total Project area (acres)	_____

## **Part 5. Project Cost Estimate**

Project cost information is needed to assist in comparing benefits and cost. Additionally, knowledge of the project type and cost will assist in identifying funding sources for potential projects.

Please indicate the estimated costs of project implementation and associated funding source(s). These costs should include land purchase/easement, planning/design/engineering, construction/implementation, environmental compliance, administration, and contingency.

<b>Approximate Total Cost</b> <i>(If project costs are variable, please include lower and upper range estimates.)</i>	<b>\$3 million to \$5 million</b>
<b>Funding Source</b> <i>(If multiple sources, list each source and the percent or amount funded by each)</i>	<b>Prop 1 and City Funds</b>
<b>Funding Certainty &amp; Longevity</b>	<b>Unknown</b>
<b>Operations &amp; Maintenance Cost</b> <i>(per year)</i>	<b>\$20,000 to \$40,000</b>
<b>Operations &amp; Maintenance Funding Source(s)</b> <i>(i.e., annual budget, grant, etc. If multiple sources, list each source and the percent or amount funded by each.)</i>	<b>Annual budget</b>
<b>Operations &amp; Maintenance Funding Certainty</b> <i>(i.e., already included in organization's budget, contingent upon grant, etc.)</i>	<b>Already included in organization's budget.</b>

**Part 6. Regional Objectives**

Indicate below whether the project meets any of the Kern IRWMP regional objectives. Where necessary/appropriate, please provide a brief explanation as to how the Project meets the regional objective.

Kern IRWMP Objectives	Does the project meet the objective?		Comments/Explanation
	Yes	No	
<b>Increase Water Supply (WS)</b>			
1. Through cooperation and collaboration with other regions restore water supplies to levels that will mitigate for water lost from the region and eliminate overdraft	Yes		Water saved during wet years that would have been diverted to the Kern River/California Aqueduct Intertie will be recharged.
2. Pursue and implement cost effective water use efficiency programs	No		
3. Increase water storage capacity in the region by increasing recharge acreage and expanding groundwater banking programs before all prime recharge land has been developed	Yes		Increases water banking operations in wet years.
4. Integrate management of water banking facilities to maximize conjunctive use over the planning horizon	Yes		Saved water will be coordinated and managed by different agencies/districts and their facilities.
5. Increase/augment water supplies to meet region demands	Yes		Increases surface water in wet years to meet regional demands.
<b>Improve Operational Efficiency (OE)</b>			
1. Increase transfers and exchanges flexibility over the planning horizon	Yes		Will help keep Kern River water in Kern County and provide flexibility.
2. Create tools to re-regulate water supplies within the region, including storage, storm flows, and operational flows over the planning horizon	No		
3. Increase distribution efficiencies and reduce energy usage over the planning horizon	Yes		Provide more control of river water for distribution and reduces groundwater pumping costs.
4. Increase the use of alternate energy sources (e.g. solar)	No		
5. Replace aging infrastructure to reduce system water losses, improve operational efficiencies, and reduce service interruptions	Yes		Old weir structure will be updated and modernized and keep water from going to River/California Aqueduct Intertie
6. Increase the use of recycled water for direct reuse within the Kern Region	No		
7. Optimize local management of water resources to improve water supply reliability over the planning horizon	Yes		Increased groundwater levels.

8. Increase pool of qualified candidates to operate water and wastewater systems	No	
<b>Improve Water Quality (WQ)</b>		
1. Monitor and/or manage headwaters/areas of origin, natural streams, and recharge areas to prevent or mitigate contamination	No	
2. Identify and preserve prime recharge areas in the Kern fan area and other areas	No	
3. Improve water quality for disadvantaged communities and the watershed over the planning horizon	No	
4. Continue to provide drinking water that meets or exceeds water quality standards; and support efforts to attain appropriate standards throughout the planning horizon	Yes	Project will help increase groundwater levels, which leads to improved water quality.
5. Maximize the use of lesser quality water for appropriate uses (landscaping, certain ag crops, “aesthetic” projects) throughout the planning horizon	No	
6. Coordinate and enhance aquatic pest control efforts from this point forward	No	
<b>Promote Land Use Planning and Resource Stewardship (LU)</b>		
1. Promote stewardship of the Kern River by applying appropriate measures in various reaches of the river from this point forward	Yes	Project will allow better control of Kern River water and increase stewardship.
2. Encourage the removal of non-native invasive plant species that affect water quality, reliability, and operations	No	
3. Identify and promote the regeneration and restoration of native riparian habitat	Yes	Project will allow better control of Kern River water and aid in diverting water to natural habitats.
4. Coordinate agricultural and urban water suppliers to more effectively address land use planning issues from this point forward	No	
5. Improve the linkage between land use planning and water supply in the region throughout the planning horizon	No	
6. Increase educational opportunities to improve public awareness of water supply, conservation, and water quality issues throughout the planning horizon	No	
7. Improve and coordinate integrated land use planning to support stewardship of environmental resources, such as the Kern River and Kern Fan, and integrate with habitat conservation plans and other ongoing planning efforts from this point forward	Yes	Project will allow better control of Kern River water and aid in diverting water to natural habitats.



8. Preserve and improve ecosystem/watershed health throughout the planning horizon	Yes	Project will allow better control of Kern River water and aid in diverting water to natural habitats
<b>Improve Regional Flood Management (FM)</b>		
1. Improve regional flood management by addressing preparedness, response, and post flood actions throughout the planning horizon	Yes	Project will allow better control of Kern River water and management of flood waters.
2. Reduce the effects of poor quality runoff throughout the planning horizon	No	
3. Identify and promote innovative flood management projects to protect vulnerable areas	No	
4. Plan new developments to minimize flood impacts from this point forward	No	