

# KINGS BASIN WATER AUTHORITY

## 2019 ANNUAL REPORT

(OCTOBER 2018 – SEPTEMBER 2019)

February 2020

PREPARED BY:



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- 1 - Project List
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## **1 – INTRODUCTION**

The Kings Basin Water Authority (KBWA) adopted an updated Integrated Regional Water Management Plan (IRWMP) in October 2018. The IRWMP established a goal of preparing an annual report (see Section 9.6 of IRWMP) to document progress and serve as a reference document for future IRWMP updates. This report includes information on the Sustainable Groundwater Management Act; status of IRWMP objectives and implementation projects; changes in governance, policies and membership of the Kings Basin Water Authority; and proposed IRWMP amendments.

This report discusses and documents project activities directly related to or processed through the KBWA or Integrated Regional Water Management (IRWM) related funding. It should be recognized that the stakeholders undertake numerous activities outside of the IRWM that may contribute to the Goals and Objectives of the region, however this report is not intended to document all individual stakeholder activities outside of IRWM efforts.

The annual report for the KBWA follows the Kings River water year, covering the timeframe between October 1, 2018 to September 30, 2019.

## **2 – STATUS OF MEASURABLE OBJECTIVES**

Following is list of Measurable Objectives (MO) from Chapter 5 of the 2018 IRWMP and progress made in meeting those objectives during the year. Progress for most objectives is documented when projects are completed that were either funded through grants secured by KBWA or were on the KBWA projects list and funded through other sources. Some objectives, such as those related to public outreach or education, are not necessarily performed as part of projects on the KBWA list, and their progress is reported on an on-going basis.

### **Measurable Objective No. 1: Increase amount of groundwater in storage with intent to eliminate the groundwater overdraft in 20 years**

*Measurement:* Report of change in overdraft in accordance with Section 12.2 of the IRWMP and net effect of new projects capacity/performance.

*Status:* This annual report does not include an estimation of the overall change in overdraft within the Kings IRWMP area. The region continues to be actively engaged in the implementation of the Sustainable Groundwater Management Act of 2014 which requires sustainability consistent with this Measurable Objective. The KBWA boundary encompasses all of the Kings Subbasin, where seven (7) Groundwater Sustainability Agencies (GSAs) have been formed but also extends past the subbasin boundaries and include a portion of two (2) additional GSAs. Annual groundwater storage change estimations are being developed and documented in the Groundwater Sustainability Plans (GSPs).

Several projects with IRWM funding were initiated, continued, or completed in this reporting period and will help to increase groundwater storage and reduce groundwater overdraft, as follows:

- The Kings River Conservation District (KRCD), Terranova Ranch, McMullin Recharge Group, Raisin City Water District (RCWD), and James Irrigation District (JID) collaborated to develop the *McMullin On-Farm Flood Capture and Recharge Project*. The project will capture North Fork Kings flood flows for on-farm recharge activities. Construction of the project has started.
- The City of Selma is undertaking the *Rockwell Pond Groundwater Recharge Project* through funding received from the State budget bill. The project will expand an existing basin and repurpose a portion into a dedicated year-round recharge facility. It is anticipated the project could generate up to 2,000 acre-feet per year of recharge. The project is listed on both the IRWM Project List and the SWRP Project List. Final design of the project is underway.

All GSAs within the KBWA are in process of preparing Groundwater Sustainability Plans (GSPs) that are coordinated with one another. The objective of the GSPs and the legislative requirements that guide them, are to achieve groundwater sustainability by 2040, which will include a mixture of efforts that include increasing the amount of groundwater in storage. All of the GSPs provide possible actions to reach sustainability, many of which include constructing new recharge projects in the Kings subbasin.

Finally, the KBWA unanimously approved six (6) recharge projects to be submitted for the Proposition 1 IRWM Implementation funding. Funding awards are unknown at this time, additional information will be updated in the 2020 Annual Report.

## **Measurable Objective No. 2: Identify opportunities and Projects**

*Measurement:* List of projects and opportunities and their potential.

*Status:* KBWA Members and Interested Parties can submit projects for inclusion on the project list at any time during the year. Included on the KBWA website is a link to submit a project for inclusion. New projects are considered at each Advisory Committee meeting and presented to the Board of Directors for inclusion on the project list. A call for new projects was held over the past year. A copy of the current Project List is included as **Attachment 1**.

In June 2019, the IRWM held a joint Proposition 1 IRWM Implementation Pre-Application Workshop with DWR staff and the other IRWMs in the Tulare Lake Basin funding area. The purpose of the workshop was to present DWR their suite of projects anticipated to be submitted for IRWM Implementation funding and receive direct feedback prior to funding application submittal.

## **Measurable Objective No. 3: Identify DAC priority needs and promote/support solutions to DAC water issues**

*Measurement:* DAC studies and project development/implementation

*Status:* Project efforts continue on several IRWM funded DAC projects listed in **Attachment 2** including the following:

- The *2016 KBWA IRWM Plan Update* continues to build on past IRWM efforts and included an update to the DAC chapter discussing outreach, inclusion of DAC community members and DAC projects on the KBWA IRWM Project List.
  - As part of the IRWM Plan Update, the KBWA undertook preparation of a Storm Water Resources Plan (SWRP) in 2017/2018 which involved significant outreach to and project development for stormwater and flooding projects in DACs throughout the KBWA area. Six (6) new projects were identified and added to the KBWA Project List through these efforts.
- The *Proposition 1 DAC Involvement Grant Program* aims to ensure involvement of DACs, Economically Disadvantaged Areas (EDAs), or underrepresented communities in IRWM planning efforts, including the following activities: Needs Assessment, Project Development, DAC Engagement and Education Program, Final Report, Project Management, and Grant Administration. Funding was received in February 2018 and the Needs Assessment task is nearing completion. A Tulare-Kern Funding Area DAC Involvement committee made up of IRWM representatives, DAC representatives, County representatives, and Non-Government Organizations (NGOs) meets regularly in Visalia to discuss progress of work and next steps. Project development funds were awarded to several DAC projects through this Program, including:
  - East Orosi Community Services District (CSD) Well and Pipeline Project (\$159,144.00)
  - Malaga County Water District Well 3 Replacement Project (\$90,856.00)
  - Sultana CSD Stormwater Project (\$142,000.00)
- The *McMullin On-Farm Flood Capture and Recharge Project* supports solutions to DAC water issues by reducing flood flows in downstream DACs and enhancing the ground water supply to the community of Raisin City by stabilizing the ground water levels and by recharging high quality surface water in and near the district.
- The *KRCD's Kings River Levee Evaluation Project* aims to improve flood protection for DACs by evaluating levees and reducing the probability of levee failure.

In addition, during the development of GSPs in the KBWA, each GSA has conducted varying levels of DAC outreach and communication in an effort to document DAC needs and include their perspectives in the GSPs.

**Measurable Objective No. 4: Increase average annual supply and reduce demand**

*Measurement:* Documentation of amount of increase/decrease

*Status:* Several water agencies completed installation of water meters through IRWMP funding as a way to help reduce water demands. These include the City of San Joaquin, City of Kerman and Bakman Water Company.

The GSPs include extensive discussion on the supply and demands of every water user in the KBWA and potential actions to increase supply and/or reduce demands. While these actions have not been implemented at this time, projections of sustainability are included in each GSP and will be further documented in each GSA's Annual Report.

**Measurable Objective No. 5: Increase dry year supply**

*Measurement:* Documentation of amount of increase

*Status:* Groundwater banking and water conservation efforts remain the focus of improving dry year supply within the region. Refer to **Attachment 2** for a list of currently funded projects.

**Measurable Objective No. 6: Increase regional conveyance capacity and adapt operations to accommodate changes in runoff and recharge**

*Measurement:* Total acre-feet available (both capacity and re-operation)

*Status:* Some of the IRWMP projects implemented have included conveyance capacity, but there are no IRWMP projects that solely increase conveyance capacity that have been initiated.

**Measurable Objective No. 7: Compile baseline water quality data for ground and surface water**

*Measurement:* Report of data collected and evaluate changes in the basin in annual report by considering population served and compliance orders from available sources such as ECHO and SDWIS.

*Status:* All of the permitted water suppliers perform water quality testing, which is available upon request. Through development of the GSPs, all documented water quality data in the KBWA has been compiled and documented for groundwater sources. This information was used in the discussion and development of sustainability criteria for water quality in groundwater. Additionally, other water users besides permitted water suppliers will also begin tracking water quality data in their groundwater supplies in the future, as the GSPs are implemented. Information regarding new water quality data and/or changes to the baseline water quality characteristics will be documented in the GSA's annual reports.

The region has not initiated a specific region-wide water quality data analysis for surface water sources.

**Measurable Objective No. 8: Encourage Best Management Practices, policies and education that protect water quality**

*Measurement:* Documentation of efforts/education

*Status:* Potential Management Actions and development of Undesirable Results, Measurable Objectives and Minimum Thresholds related to water quality in the GSPs will help to protect and potentially improve water quality throughout the region. The GSPs have been or will be widely distributed for public review and will remain a public use document.

The Fresno Metropolitan Flood Control District continued its public outreach efforts related to clean stormwater and pollution prevention, including television advertisements, mailings, and education programs.

**Measurable Objective No. 9: Identify sources of water quality problems and promote/support solutions to improve water quality**

*Measurement:* Report of information gathered

*Status:* All of the permitted water suppliers perform water quality testing, which is available upon request. The MCL for hexavalent chromium was invalidated in 2018 and a new MCL remains in development. An MCL for 1,2,3,-trichloropropane (TCP) of 5 parts per trillion (ppt) was set in 2018; there are more than 60 wells in Fresno County with levels in exceedance of the TCP MCL. Many of the agencies with TCP violations are in process of, at the conclusion of, or contemplating litigation against apparent responsible parties. Those with MCL violations and/or compliance orders are also in process of or have constructed treatment systems, typically granular activated carbon (GAC), to treat the affected water supply to meet drinking water standards.

The County of Fresno is working with several communities around the City of Fresno to determine the feasibility of removing septic systems from the unincorporated areas and connecting to the City of Fresno's wastewater collection system.

**Measurable Objective No. 10: Increase surface storage**

*Measurement:* Documentation of amount

*Status:* The increase of surface storage was limited to minimal surface storage increase associated with the groundwater recharge basin or banking facilities included on the IRWMP project list. No larger or significant surface storage project has been undertaken by the KBWA within the region.

**Measurable Objective No. 11: Sustain the Kings River Fisheries Program**

*Measurement:* Report on program

*Status:* The Irrigation Districts continue to divert water from storage to convey down the river to maintain the Fisheries Program in accordance with the Fisheries Program Agreement.

**Measurable Objective No. 12: Pursue opportunities to incorporate habitat benefits into projects**

*Measurement:* List of opportunities considered and accomplishments

*Status:* The previously completed Consolidated ID South and Highland Basin Project included two island features that will serve as examples of habitat incorporation. Habitat benefit continues to be considered as part of project development associated with grant funding pursuits.

**Measurable Objective No. 13: Increase public awareness of IRWM efforts**

*Measurement:* Public relations and annual reporting

*Status:* The 2018-19 outreach efforts for the KBWA included websites, communication tool development, and social media. Some of the highlights include:

- **KBWA website: [www.kingbasinauthority.org](http://www.kingbasinauthority.org)**  
Between July 2014 and January 2019 there were 20,652 views on the KBWA website. Popular pages that garnered the most views including KBWA's project list and reports, Kings Basin IRWMP Update, and the list of KBWA directors.
- **Kings Groundwater Basin Video**  
Since the publication of the KBWA groundwater video in April 2014 there have been 1,375 views on YouTube.
- **KBWA Twitter Account: @Kings Water**  
As of October 2019, KBWA's Twitter account has 782 followers and 1,187 tweets since its inception. The goal of KBWA's Twitter account is to extend awareness of the activities of the KBWA to followers locally and outside of the Kings Basin. KBWA has also established a new Facebook page.
- **Communication Tools**  
Through the Proposition 1 DAC Involvement Grant Program, Self-Help Enterprises developed an IRWM fact sheet for the KBWA. The fact sheet was distributed at a Disadvantaged Communities Project Development Workshop on April 16, 2019 in Selma, CA.
- **Media**  
An article was published by the San Joaquin Valley Sun on July 2, 2019 regarding the City of Fresno's "Leaky Acres" re-envisioning to increase recharge. Additionally, several articles and televised news stories were published regarding recharge efforts throughout the KWBA, including formation of the GSA and preparation of the GSPs.

**Measurable Objective No. 14: Involve local water districts and land use agencies in generating and confirming the current and future water needs to ensure compatibility and consistency with land use and water supply plans.**

*Measurement:* Tracking of involvement with land use planning officials and inclusion in planning documents.

*Status:* KBWA and its Members and Interested Parties participated in several forums, committees, workgroups and other activities associated with SGMA. The SGMA coordination workgroup meets monthly related to SGMA, KBWA stakeholders continue to be actively involved in SGMA and involved in how implementation will impact land use decisions.

The GSPs discuss, in detail, existing planning documents related to land use and/or water use and how the GSPs will coordinate with those existing plans, including General Plans, Urban Water Management Plans, and Groundwater Management Plans.



**Measurable Objective No. 15: Comply with SBx7-7**

*Measurement:* Review of compliance by stakeholders

*Status:* All Irrigation Districts that are Members of the KBWA have previously completed Agricultural Water Management Plans and submitted them to the State. The cost of compliance with SBx7-7 legislation remains significant for agricultural districts within the region, and some in the region continue to challenge whether any water conservation benefits will be obtained, particularly in a conjunctive use basin such as the Kings.

Completion of several metering projects, including the Bakman Water Company and cities of San Joaquin and Kerman projects, brought three more public water suppliers into compliance with SBx7-7.

The implementation of SGMA will coordinate with these efforts for both agricultural and public water purveyors.

**Measurable Objective No. 16: Pursue opportunities to include project elements that reduce energy consumption, reduce greenhouse gas emissions, use renewable resources or include carbon sequestrations strategies.**

*Measurement:* List of opportunities considered and accomplishments

*Status:* Water conservation projects, including water metering, and increased use of recycled water or surface water, reduce the amount of groundwater pumped, which in turn reduces the energy consumption associated with pumping. Additionally, recharge projects help raise groundwater levels, which decrease the amount of lift required and also reduced related energy consumption. Refer to **Attachment 2** for a list of currently funded projects.

### **3 – IMPLEMENTATION PROJECTS**

#### **3.1 – Regional Studies**

Through SGMA, the GSP development efforts included preparation of a Hydrogeological Conceptual Model of the groundwater basin was completed as part of the GSP efforts. The model was completed by Provost & Pritchard Consulting Group and Ken D. Schmidt & Associates.

#### **3.2 – Project List**

KBWA Members and Interested Parties can submit projects for inclusion on the project list at anytime. Projects are then reviewed by the Projects Work Group and considered for approval by the Board. A copy of the project list is included as **Attachment 1**. The current list is maintained on the KBWA website, [www.kingsbasinauthority.org](http://www.kingsbasinauthority.org), which also includes an interactive map of the projects included on the project list.

#### **3.3 – Completed or On-going Projects**

Completed and ongoing projects during this annual reporting period are listed in **Attachment 2 – Status of Planning and Implementation Contracts** (last updated September 18, 2019), and discussed throughout Section 2 – Status of Measurable Objectives. Since the initiation of IRWM efforts in the region, the cumulative funding amount awarded to the region through IRWM related efforts is \$52,570,259, and the cumulative project cost is more than \$102 million.

#### **3.4 – Grant Funding**

**Attachment 2** includes a list of currently funded projects.

##### IRWMP Planning

The KBWA was successful in its Proposition 1 IRWM Planning Grant application to update the Kings Basin IRWMP and prepare a Storm Water Resources Plan. The work under the grant was completed in early 2019; the IRWMP Update has been approved and KBWA is awaiting concurrence on the SWRP.

#### **3.5 – Lessons Learned**

No lessons learned were reported for this period.

## **4 – GOVERNANCE, POLICIES AND MEMBERSHIP**

### **4.1 – Changes in Governance and Policies**

The KBWA did not consider any new Policies this year.

The KBWA considered and approved the following Resolutions:

- Resolution 18-02: certifying adoption of the KBWA 2018 IRWMP Update, including filing of a CEQA Exemption
- Resolution 19-01: certifying adoption of the KBWA SWRP
- Resolution 19-02: designating bank signing signatories for the KBWA
- Resolution 19-03: authorizing KBWA to file a Proposition 1IRWM Implementation Grant application

### **4.2 – Changes in Government Regulations**

The implementation of the Sustainable Groundwater Management Act is requiring significant effort by the KBWA's Members and Interested Parties. More information on SGMA can be found in Section 6.

### **4.3 – Changes in Members and Interested Parties**

The McMullin Area GSA was approved as an Interested Party in March 2019.

### **4.4 – Coordination with Other IRWMPs**

The KBWA continues to participate in several efforts to coordinate with neighboring IRWMPs, including:

- Participation in IRWMP 'Roundtable of Regions' meetings, a statewide effort to bring all IRWMPs together to discuss important issues.
- Regularly attending meetings for the Tulare Basin Integrated Regional Planning Effort, a regional collaboration by several IRWMPs to discuss inter-regional topics in the Tulare Lake Basin.

## **5 – PROPOSED IRWMP AMENDMENTS**

The IRWMP was updated to meet new State Standards (AB 1249 and SB 985). The 2018 IRWMP Update was adopted by the KBWA in October 2018. No amendments are anticipated at this time.

## **6 – SUSTAINABLE GROUNDWATER MANAGEMENT ACT**

The Sustainable Groundwater Management Act (SGMA) was passed by California legislation in 2014. SGMA will require a gradual transition to sustainable groundwater management and stabilization of groundwater levels. Groundwater management will occur by Groundwater Subbasin and newly formed Groundwater Sustainability Agencies (GSAs). The GSAs will be public agencies independent of the KBWA.

Deadlines for SGMA, in this region, include development of Groundwater Sustainability Plans (2020), and sustainable groundwater management (2040).

The Groundwater Sustainability Agencies that have been formed in the KBWA boundary include:

- Central Kings GSA
- James GSA
- Kings River East GSA
- McMullin GSA
- North Kings GSA
- North Fork Kings GSA
- South Kings GSA
- The KBWA boundary extends into portions of the following GSAs:
  - Mid-Kings River GSA
  - Greater Kaweah GSA

These GSAs have been formed and are in process of preparing their Groundwater Sustainability Plans as of October 2019. The DWR SGMA portal (<https://sgma.water.ca.gov/portal/>) features interactive maps that allow viewers to see basin boundary modifications and where GSAs have formed.

# ATTACHMENT 1

## PROJECT LIST







# ATTACHMENT 2

## PAST AND PRESENT GRANT CONTRACTS

## Kings Basin Water Authority – Past & Present Grant Contracts

Last updated: January 22, 2020

Program & Agency	Project Title	Project Proponents	Project Description	Grant Award/Request	Status
Prop 13 Groundwater Storage Construction Grant Program (CDWR)	Alta Irrigation District Coordinated Groundwater Storage Project	KRCD Alta ID City of Dinuba	Dinuba project is a twenty-eight acre, three-cell stormwater retention and recharge basin located within the City of Dinuba. AID's Traver Pond project is the enlargement of an existing five-acre recharge basin to a size of sixteen-acres.	Grant: \$2,737,753 Project Cost: \$2,974,651  Contract executed with CDWR, June 2006	Completed in 2011
Prop 13 Groundwater Storage Construction Grant Program (CDWR)	Fresno Irrigation District Waldron Pond Banking Facility Expansion	FID	The Waldron Pond Banking Facility is a groundwater recharge and recovery project that provides water to urban suppliers, agriculture suppliers, and facilitates the environmental benefits of improving the Kings River fishery. The project constructed eight recovery wells, five monitoring wells, and thirteen new recharge basins expanding the existing facility to 270 aggregate acres of recharge area.	Grant: \$4,615,072 Project Cost: \$10,500,000	Completed in 2008
Prop 50 IRWM Planning Grant Program (CDWR)	Upper Kings Basin Water Forum Integrated Regional Water Management Plan	KRCD/Water Forum	Initial development of the Upper Kings Basin IRWMP.	Grant: \$500,000 Project Cost: \$1,000,000	Completed July 2007
Prop 50 IRWM – Discretionary Funds – Integrated Regional Groundwater Model Demonstration (CDWR)	Kings Basin Integrated Groundwater Surface-water Model (Kings IGSM)	KRCD/Water Forum	The Kings IGSM was developed to support the planning analysis required for the Upper Kings Basin IRWMP project. It provides an analytical tool for the region that can represent the groundwater and surface water flow systems and their interactions; and can provide quantitative information on a comparative basis to help evaluate alternative conjunctive water management strategies.	Grant: \$500,000 Project Cost: \$1,000,000	Completed model development Spring 2007; calibration report published November 2007
Prop 84 River Parkways and Urban Streams Restoration Grant Programs (CA Resources Agency)	Kings Ribbon of Gems – North Riverside Park	Kings River Conservancy KRCD/Water Forum	Implementation of a project identified in the "Kings Ribbon of Gems" plan. 38-acre river parkway located below Pine Flat on the north bank of the Kings River upstream of Choinumni Park. Two components: 1) 1.5-mile river access trail with 0.5-mile ADA compliant section plus picnic areas, 2) ADA restroom, with adjacent ADA parking area.	Grant: \$284,674 Project Cost: 298,374  Contract executed with Resources Agency Summer 2011.	Project is complete. Ribbon cutting ceremony occurred in Spring 2013.
Prop 50 Round 2 IRWM Implementation Grant Program (SWRCB)	Upper Kings Basin Water Forum Project	KRCD/Water Forum Alta ID City of Fresno Fresno ID	AID Traver Pond Project provides dry year supply and is a component of a surface water exchange agreement w/ Cutler & Orosi PUDs. City's project installs 10k of a planned 110k residential water meters. FID Jameson Pond Expansion adds sixty additional acres to an existing forty-acre recharge facility.	Grant: \$6,064,375 Project Cost: \$18,112,895  Contract executed with SWRCB, December 2008	Completed September 2013.

Program & Agency	Project Title	Project Proponents	Project Description	Grant Award/Request	Status
Prop 50 Supplemental – AKA Mini 50 – Grant Program (CDWR)	The Fresno Irrigation District Jameson Pond Expansion Project Phase II  The City of Fresno Residential Water Meter Project Phase II	UKBIRWMA City of Fresno Fresno ID	Fresno ID's Jameson Pond Phase II Expansion enhances water supply capacity by constructing an addition recovery well. The City's Phase II meter project installs an additional 5k meters (of planned 110k) complete with AMR devices and software.	Grant: \$2,099,868 Project Cost: \$4,661,500  Contract executed with CDWR, September 2011	Completed December 2015.
Prop 84 IRWM Disadvantaged Communities Pilot Program (CDWR)	UKBIRWMA – Disadvantaged Communities (DAC) Outreach & Planning Pilot	UKBIRWMA	Project seeks to map DACs and their water needs; develop mechanisms to effectively engage and integrate DACs into the IRWM planning process; develop conceptual project descriptions and cost estimates to include in the IRWMP project list; and identify/facilitate partnerships between member agencies and DACs.	Grant: \$500,000 Project Cost: \$500,000  Contract executed with CDWR, January 2012	Completed June 2014.
Prop 84 Round 1 IRWM Planning Grant Program (CDWR)	UKBIRWMA – Integrated Regional Water Management Plan Update	UKBIRWMA	The objective of the project is to update the 2007 Upper Kings Basin IRWMP to: 1) Satisfy new State guidelines for IRWMPs; 2) More thoroughly address Statewide Priorities and Program Preferences; 3) Update the plan to include recent information; 4) Address inadequacies in the existing IRWMP; 5) Expand the focus on Disadvantaged Communities; 6) Document successes and lessons learned since the original plan was drafted; 7) Document governance and policy improvements since the original plan was drafted; 8) Engage more stakeholders; and 9) Improve the overall regional planning process.	Grant: \$236,890 Project Cost: \$336,850  Contract executed with CDWR, September 2011	Completed April 2014.
Prop 1E Round 1 IRWM Stormwater Flood Management Grant Program (CDWR)	Fancher Creek Flood Control Improvement Project	City of Fresno w/ Fresno Metropolitan FCD  (project is included in the Kings Basin IRWMP project list)	The Fancher Creek Detention Basin removes 682 acres from the 100-year floodplain, redirects runoff that may contain pollutants into stormwater management basins, and result in approximately 740 acre feet of additional surface water recharge per year. Once complete, the basin will have sufficient capacity to provide the 100-year control of the Fancher Creek flows.	Grant: \$2,231,086 Project Cost: \$4,613,734  Contract executed with CDWR, Sept. 5, 2012.	Grant completion date: 12/31/16.

Program & Agency	Project Title	Project Proponents	Project Description	Grant Award/Request	Status
Prop 84 Round 1 IRWM Implementation Grant Program (CDWR)	UKBIRWMA – Groundwater Overdraft Reduction and Disadvantaged Community Water Supply Reliability Projects	UKBIRWMA Bakman WC w/ FID Consolidated ID County of Fresno City of Clovis City of Fresno East Oroshi CSD w/AID	Bakman WC's project entails installation of 2,453 residential water meters. Consolidated ID's project develops a 75-acre groundwater banking facility. County of Fresno Drummond Jensen project removes an unincorporated neighborhood from septic by connecting to City of Fresno. City of Clovis' project entails expansion of its surface water treatment facility to reduce groundwater pumping. City of Fresno's project would install an additional 10k residential water meters. And East Oroshi CSD's project rehabilitates two existing muni wells in a DAC to extract from a higher quality zone of the aquifer.	Grant: \$8,496,000 Project Cost: \$15,404,340  Contract executed with CDWR, July 2012	The grant contract concluded 6/30/18. In process of submitting final invoice, retention request, and project completion report. Grant not officially closed out.
Prop 84 Local Levee Grant Program (CDWR)	Kings River Levee Evaluation Project	KRCD  (project is included in the Kings Basin IRWMP project list)	The objective of this project is to reduce flood risk on the Kings River by evaluating flood project levees, identifying deficiencies, and recommending appropriate management actions.	Grant: \$2,000,000 Project Cost: \$2,292,922  Contact executed with CDWR, February 2013	USACE finishing Section 106 tribal consultation.
Prop 1E Round 1 Flood Corridor Grant Program (CDWR)	McMullin On-Farm Flood Capture and Recharge Project	KRCD Terranova Ranch McMullin Recharge Group Raisin City WD James ID (project is included in the Kings Basin IRWMP project list)	Project is Phase 1 in a multi-phase project to capture North Fork Kings flood flows for on-farm recharge activities (direct/in-lieu recharge, irrigation). Objectives will be achieved through flood easements on 250 acres; upgrade to turnout along Kings River, McMullin Grade Crossing, Terranova Canal, and implementation of Flood Flow Capture on 1250 acres. Project will divert flood flows up to 500 cfs.	Grant: \$5,039,950 Project Cost: \$14,551,689.13  Contract executed with CDWR, February 2013	DWR provided an additional \$39,950 for flow meter and telemetry. Agreement extended to Nov. 2020.
California Water Foundation	Kings Basin Remote Groundwater Monitoring Project	KRCD	Installation of satellite-based remote groundwater monitoring equipment on nine existing wells located on or near Manning Avenue between James ID and Alta ID.	Grant \$44,763 Project Cost ~\$55,000  Contract executed with CWF, Summer 2012	Completed May 2013.
California Water Foundation	Implementation of Interlinked Groundwater Management Strategies in the Kings Basin	KRCD	Installation of constructed monitoring wells within Management Areas A & B, update of the Kings IGSM and model run of IRWMP projects, and land use outreach.	Grant \$1,000,000 Project Cost ~\$1,080,000  Contract executed with CWF, February 2013	Completed April 2016

Program & Agency	Project Title	Project Proponents	Project Description	Grant Award/Request	Status
Prop 1E Round 2 IRWM Stormwater Flood Management Grant Program (CDWR)	Dry Creek Flood Control Improvement Project	Fresno Metropolitan FCD  (project is included in the Kings Basin IRWMP project list)	The project consists of modifications to FMFCD's flood control facilities in the Big Dry Creek and Pup Creek watersheds. The project's primary goal is to provide better flood protection for the Cities of Fresno and Clovis, and surrounding areas. The project includes improving the structural integrity of the Big Dry Creek Dam, and channel improvements to allow more effective and flexible routing of flood waters at three points downstream of the Dam along the Dry Creek system. In addition, the project includes construction of one floodwater detention basin and expansion of an existing flood water detention basin in order to increase stormwater storage capacity, increase groundwater recharge, and improve groundwater quality.	Grant: \$6,891,011 Project Cost: \$13,782,021  Contract executed May 12, 2014	Grant completion date: 9/30/2017.
Prop 84 Round 2 IRWM Implementation Grant Program (CDWR)	KBWA IRWM Implementation Grant Projects	UKBIRWMA City of San Joaquin Fresno ID Bakman Water Co. Laguna ID City of Kerman	The City of San Joaquin's project provides drinking water supply and quality benefits to DAC residents through well rehabilitation and installation of residential water meters. Fresno ID's project partners with James ID to utilize flood water for banking and recharge in the lower Kings Basin. Bakman's project provides drinking water supply and quality benefits to DAC residents through well head treatment of DBCP and installation of residential water meters. Laguna's project involves construction of a 52-acre recharge and banking facility between Laton and Riverdale. City of Kerman's project installs 665 residential water meters of the City's planned program to meter all residential users.	Grant: \$8,734,000 Project Cost: \$11,105,913  Contract executed July 2014	Grant agreement ended 6/30/2018.
Prop 1 IRWM Planning Grant Program (CDWR)	2016 KBWA IRWM Plan Update	KBWA	Update of the Kings Basin IRWM Plan to meet 2016 IRWM Plan Standards. Update will include the development of a Stormwater Resources Plan.	Grant: \$202,817 (only used \$201,402.26) Project Cost: \$257,162.40  Contract executed June 2017	Completed December 31, 2018.

Program & Agency	Project Title	Project Proponents	Project Description	Grant Award/Request	Status
Prop 1 DAC Involvement Grant Program (CDWR)	Tulare-Kern Funding Area DACI Program	KBWA Southern Sierra IRWM Kaweah River Basin IRWM Poso-Creek IRWM Kern County IRWM Westside-San Jaoquin IRWM Tule River Basin IRWM County of Tulare is applicant on behalf of IRWMS	The purpose of this grant is to engage DAC/SDACS/EDA in the IRWM planning process. Project activities include: Needs Assessment web portal, DAC Engagement and Education Program, and DAC project development.	Grant: \$3,400,000 to the Tulare-Kern FA (of which \$392,000 directly allocated to KBWA for DAC projects) Project Cost: \$392,000  Contract executed February 13, 2018	County of Tulare created a Project Advisory Committee (PAC) to guide implementation of grant activities. PAC has been meeting regularly. Scope includes: DAC Needs Assessment, DAC Engagement and Education Program, project development, and project administration. KBWA DAC projects awarded: <ul style="list-style-type: none"> <li>• EOCSD: \$159,144</li> <li>• MCWD: \$90,856</li> <li>• SCSD: \$142,000</li> </ul>

Cumulative Award: **\$52,570,259**

Cumulative Projects Cost: **\$102,919,051.53**