

Public Outreach Material

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POSO CREEK

Integrated Regional Water Management Plan



—ADOPTED JULY 2007—

Poso Creek IRWMP Regional Water Management Group, Study Area, and Region

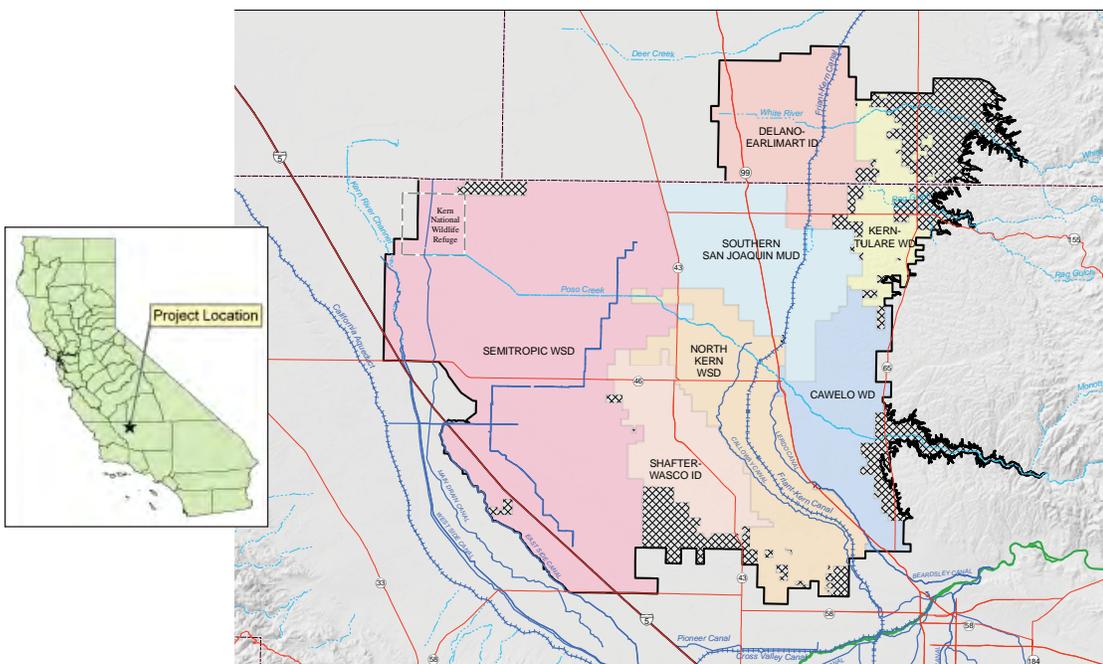
The Poso Creek Regional Water Management Group (RWMG) comprises six agricultural districts and one resource conservation district listed below.

- Semitropic Water Storage District – Lead Agency
- Cawelo Water District
- Delano-Earlimart Irrigation District
- Kern-Tulare Water District
- North Kern Water Storage District
- Shafter-Wasco Irrigation District
- North West Kern Resource Conservation District

The RWMG adopted the Poso Creek Integrated Regional Water Management Plan (Poso Creek IRWMP) in July 2007.

These districts overlie the groundwater basin in the Tulare Lake Basin Hydrologic area located in the northerly portion of Kern County and southerly portion of Tulare County. The Poso Creek IRWMP Region (Region) is a fertile agricultural area with a current annual gross value of agricultural commodities estimated at \$2 billion. The rich soils, climate, and irrigation water make it possible to grow predominately high-value, permanent crops. The largest value commodities – almonds, grapes, citrus, pistachios, and vegetables – are sold worldwide.

The Poso Creek IRWMP emphasizes resolving the Region's short-term and long-term water supply challenges through an integrated water resource planning approach. The Poso Creek IRWMP includes development of regional water management strategies to address the Region's needs and the framework for prioritizing and implementing them. The focus of the RWMG is to improve water supplies throughout the Study Area.



Notes:

1. The boundary of the RMG and Region encompasses all of the area within the districts; however, to the extent that the NWKRC boundary includes area outside of the districts, the NWKRC boundary lines are not included.
2. For the purpose of evaluating water supplies, demands, and operations, Southern San Joaquin Municipal Utility District (SSJMU) was included with the RMG districts. This larger grouping is referred to throughout the IRWMP as the Study Area.

Poso Creek IRWMP Region's Assets

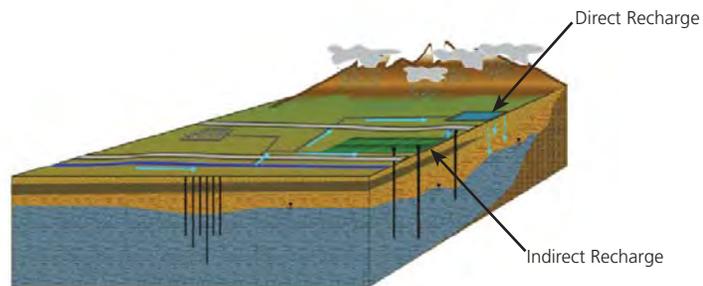
The RWMG and stakeholders (listed on the last page of this brochure) share a common interest in managing the surface water and groundwater resources of the Region. They have operated segments of the groundwater basin conjunctively with available surface supplies for decades. The managed resources include water supplies from:

- State Water Project via the California Aqueduct
- Central Valley Project via the California Aqueduct
- Central Valley Project via the Friant-Kern Canal
- Kern River
- Poso Creek
- Common groundwater basin

The Region is located at the crossroads of the California Aqueduct, Friant-Kern Canal, and the Kern River. Thus, the potential for increased conjunctive use of surface water and groundwater supplies is a valuable asset to the Region.

Since California typically experiences either wet or dry years, the groundwater basin acts as a large regulating reservoir. The existing conjunctive use operation can be expanded by adding interconnections and promoting water supply exchanges between districts that allow for more flexibility in the Region's water supply. The Region's assets of federal, state, and local water supplies, dewatered groundwater storage, and significant irrigation demand make it an ideal location to regulate surface supplies conjunctively to the benefit of the agricultural based economy and the *economically-disadvantaged communities* of the Region and the state of California.

Water Supply, Conveyance, and Groundwater Storage



The proximity of the RWMG to the California Aqueduct, Friant-Kern Canal, Kern River, Poso Creek and groundwater banking facilities, combined with large conveyance and absorptive capacity, provides an ideal setting for expanded conjunctive use operations.

The Region has large conjunctive use operations and significant groundwater storage capacity.

Challenges to the Region

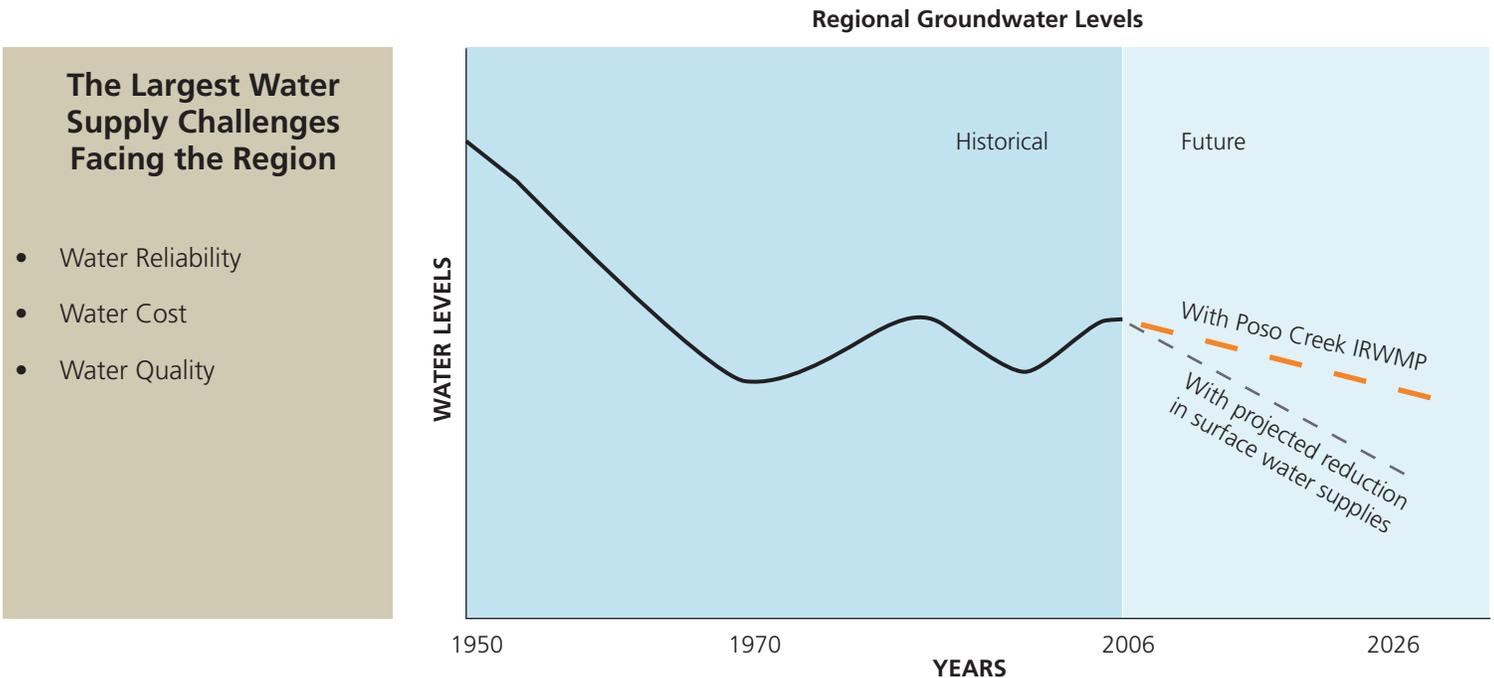
The accumulated effect of surface water supplies is reflected in the Region’s groundwater levels. As shown in the figure below, surface water supplies to the Region have generally stabilized groundwater levels since 1970. This relatively balanced condition would continue if deliveries of surface water supplies were to remain the same as recent historical amounts. However, the Region’s deliveries of surface water supplies are projected to decrease due to increased urbanization and environmental uses throughout the state.

Also shown illustratively in the figure are the effects of the projected reduction in deliveries of surface water supplies on regional groundwater levels. As pressure on surface supplies increases, it is apparent that the Region must make additional

use of its groundwater basin to regulate and absorb the available wet-year supplies. This increased conjunctive use operation will help maintain water reliability within the Region.

Since the Region produces crops for both local and world markets, to maintain its competitive role in the market place, the water supply must remain economical. Increased conjunctive use operations will help to maintain or enhance groundwater levels that support economically viable groundwater pumping lifts.

Groundwater quality in the Region is currently very good. Water banking and exchange activities will require water quality management and treatment to maintain that water quality.



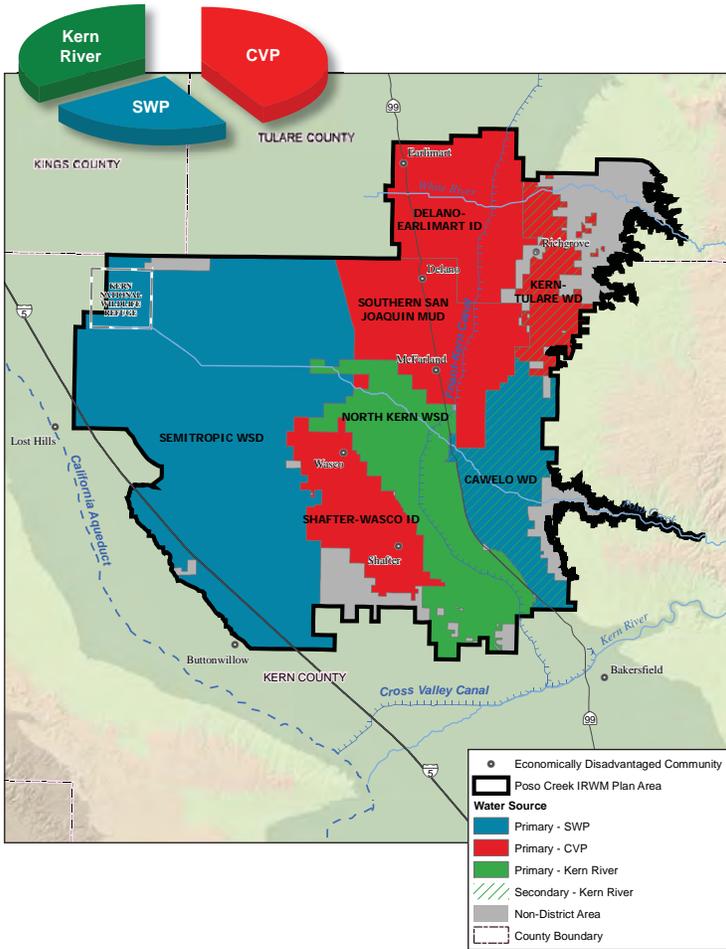
Regional Cooperation Will Provide A Solution

The sources of surface water supplies of the Region's individual districts' are shown on the map below. With the expected loss of historical surface water supply reliability, the Region must absorb wet-year water supplies in order to maintain a reliable and economical water supply. Wet-year water is available on short notice and not always at times when the water can be delivered for an irrigation demand. Therefore, it is important that the Region increase its ability to absorb surface water when available.

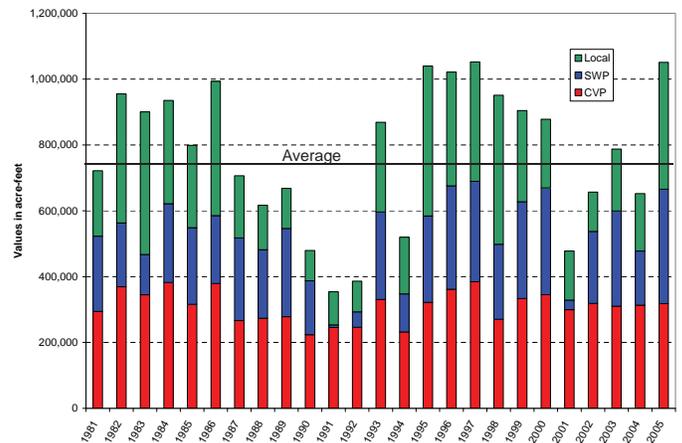
Because water is available to the Region from a number of sources which have differing hydrologic timing, integration of these various water supplies, combined with conjunctive

use of the groundwater basin, provides the Region with an opportunity to mitigate the projected loss to its water supplies.

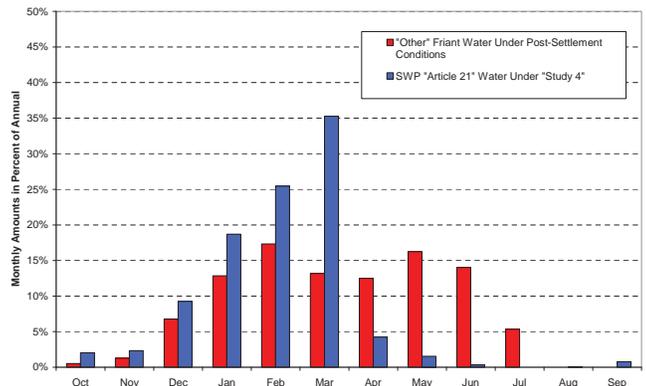
Regional cooperation will provide solutions for individual district needs by increasing operational flexibility. This can be accomplished by enhancing the existing conveyance systems within districts and establishing interconnections between districts. These conveyance enhancements will foster additional water delivery capability within the Region.



Historical Surface Water Supplies delivered to Poso Creek IRWMP Region during 1981-2005



Average Monthly Distribution of "Other" Friant Water Under Post-Settlement Conditions and SWP "Article 21" Water Under "Study 4"



Planning Objectives, Strategies and Water Management Measures

The RMG intends to implement non-structural and structural water resource management measures that support the Region's Planning Objectives and consider the State of California's state-wide priorities and the California Water Plan Update 2005 Resource Management Strategies.

The seven Planning Objectives which were identified for the Region are listed below. The more detailed operational objectives developed by the RMG during the plan formulation are included in Table ES-1 of the Plan.

- 1) Maintain and improve water supply reliability
- 2) Maintain groundwater levels at economically viable pumping lifts
- 3) Protect the quality of groundwater and enhance where practical
- 4) Maintain water supply costs at a level commensurate with the continued viability of the agricultural economy which has developed in the area
- 5) Enhance monitoring activities to meet groundwater levels and water quality goals
- 6) Maintain and/or enhance environmental resources within and outside of the study area
- 7) Enhance flood control in the study area

Planning objectives 1 through 5 were selected by the RWMG based on a consensus reached during a pre-application meeting held on April 20, 2005. Subsequently, during the kick-off meeting for the Poso Creek IRWMP held on January 5, 2006, the RWMG added planning objective 6, and, based on stakeholder input during monthly meetings held in 2006, planning objective 7 was added.

As Projects are implemented to meet the highest priorities for the Region, secondary benefits that each project may provide will be integrated into the *regional* solution. These benefits may include, flood control, ecosystem restoration, environmental and habitat protection and improvement, reduction in use of power and energy, water quality improvements, subsidence mitigation, and many others.

The RWMG, with input from the stakeholders, has considered all of the Water Management Strategies listed in Table 2–Water Management Strategies of the IRWM Grant Program Guidelines. Most of these water management strategies are already practiced in this Region to some extent, as discussed in Chapter 6 of this Plan. Due to the overwhelming need to address water supply issues within the Region, the RMG prioritized water management strategies into the following two groups;

Highest Priority Strategies Considered for Project Implementation

- Groundwater management
- Water supply reliability
- Conjunctive management of surface water and groundwater
- Water transfers and exchanges
- Water quality protection and improvement

Strategies Considered for Project Integration¹

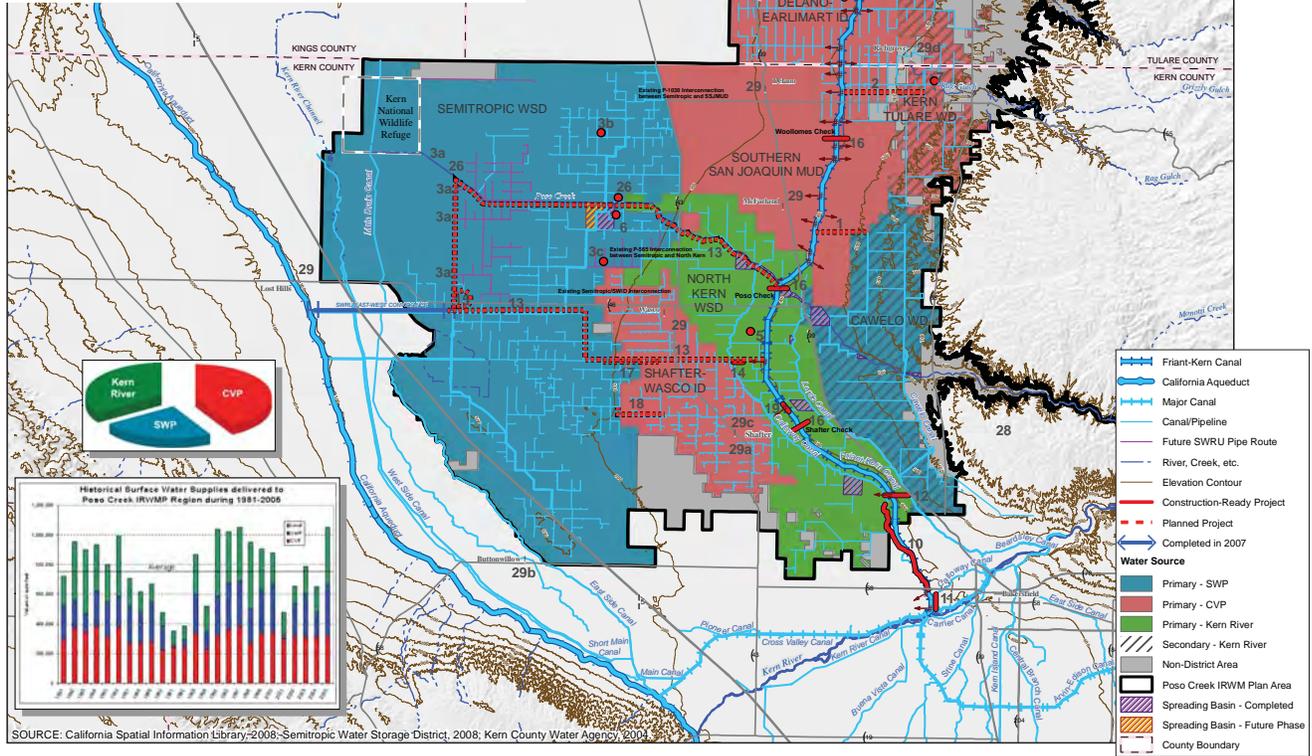
- Ecosystem restoration
- Environmental and habitat protection and improvement
- Flood management
- Imported water
- Land use planning
- NPS pollution control
- Recreation and public access
- Storm water capture and management
- Surface storage
- Water conservation
- Water recycling
- Water and wastewater treatment
- Watershed planning
- Wetlands enhancement and creation

The RWMG formulated and prioritized projects to implement, consisting of the non-structural and structural water management measures listed on the opposite page. Locations of the proposed structural measures are shown on the map. The projects that are proposed for near-term funding proposals are highlighted. Implementation of these projects will occur in phases as funding opportunities are secured to match local contributions.

¹ Due to the location of the Region, desalination is the only water management strategy not under consideration for the Region.

Water Supply Enhancement Project for the Poso Creek IRWM Plan Region

While the estimated capital cost to implement all of the proposed water management measures is on the order of \$300 million (at 2009 price levels), it is noted that the costs and the benefits realized for each component are not strictly additive and that significant benefits can be achieved with initial expenditures which are much less than this total amount.



STRUCTURAL PROJECTS (LOCATIONS SHOWN ON MAP)

Expand In-Lieu Service Areas

- D 1 Connect Friant-Kern Canal Turnout to Cawelo's North System
- D 2 Ninth Avenue Pipeline
- S 3a Stored Water Recovery Unit*
In-Lieu Service Area Facilities
Well Field Recovery Facilities & HCP
- C 3b Expand P-1030 In-Lieu Service Area
- C 3c New P-565 In-Lieu Service Area

Expand Direct Recharge

- D 4 G-W Banking North of DEID with Pixley ID
- D 5 G-W Banking Conveyance Improvements to North Kern WSD Recharge and Recovery Facilities
- S 6 Pond Poso Spreading Grounds*
- D 7 Rag Gulch G-W Banking Project
- S 8 Turnipseed GW Banking Project Enhancement along White River in DEID*
- D 9 White River G-W Banking in Rag-Gulch

Modify Conveyance Systems

- S 10 Calloway Canal Improvements
- S 11 Calloway Canal to Cross Valley Canal Interconnection
- S 12 Calloway Canal to Lerdo Canal Interconnection*
- D 13 Multi-District Conveyance Facility
- S 14 North Interconnection between North Kern WSD/Shafter-Wasco*
- D 15 Pilot Arsenic Treatment Plant

P = In Progress C = Construction Complete
D = Planning/Preliminary Design S = Shovel-Ready for Construction

NON-STRUCTURAL PROJECTS (SOME LOCATIONS NOT SHOWN ON MAP)

- P 20 Energy Usage
- P 21 Joint Powers Authority
- P 22 Institutional Agreements and Governance for IRWMP* Implementation
- P 23 GW Banking for Parties Outside of Poso Creek IRWMP Region*
- P 24 Optimizing Region's Pumping Lifts
- P 25 Enhance Groundwater Monitoring and/or Modeling*

ENHANCE ENVIRONMENTAL RESOURCES

- D 26 Wildlife Improvement Projects in IRWMP Region
- D 27 Environmental Water Management in Support of Wildlife Settlements Outside of IRWMP Region

ENHANCE FLOOD CONTROL

- D 28 The Poso Creek Flood Control and Water Conservation Reservoir Project

ASSIST ECONOMICALLY DISADVANTAGED COMMUNITIES

- D 29 Enhance Water Supply, address Drinking Water Treatment Needs, and upgrade Waste Water Treatment Facilities*



POSO CREEK IRWMP

Management Group

Your interest in the Region's water resources and views on how they should be managed are important to the RWMG and stakeholders. We welcome your input, reviews, and comments on the Poso Creek IRWMP. The RWMG will continue to meet monthly as part of implementing the plan. RWMG public meetings are typically held at 12 pm on the first Tuesday of each month at the Semitropic Water Storage District offices. You may also participate in the meetings by conference call.

Please contact Mr. Paul Oshel, District Engineer for Semitropic Water Storage District, at (661) 758-5113, for information or to answer questions on behalf of the following seven entities:



Wilmar L. Boschman
General Manager
Semitropic Water Storage District



Steven C. Dalke
General Manager
Kern-Tulare Water District



David R. Ansolabehere
General Manager
Cawelo Water District



Dana S. Munn
Engineer-Manager
North Kern Water Storage District



Dale R. Brogan
General Manager
Delano-Earlimart Irrigation District



Brian Hockett
District Manager
North West Kern Resource Conservation District (NWKRCDD)



Jerry L. Ezell
General Manager
Shafter-Wasco Irrigation District

Regional Water Management Group

- Semitropic Water Storage District
- Cawelo Water District
- Delano-Earlimart Irrigation District
- Kern-Tulare Water District
- North Kern Water Storage District
- North West Kern Resource Conservation District
- Shafter-Wasco Irrigation District

Stakeholders and Plan Participants

- Buena Vista Water Storage District
- Lost Hills Water District
- Rosedale-Rio Bravo Water Storage District
- Semitropic Wildlife Improvement District
- Southern San Joaquin Municipal Utility District

- Kern County Water Agency
- Friant Water Users Authority
- Kern County Board of Supervisors
- City of Buttonwillow
- City of Delano
- City of McFarland
- City of Shafter
- City of Wasco
- Lost Hills Utility District
- Kern National Wildlife Refuge
- Paramount Farms

State and Federal Agencies

- California Department of Fish and Game
- California Department of Water Resources
- U.S. Bureau of Reclamation

Stakeholders and Participants added following the Plan adoption July, 2007

- California Water Institute, CSU Fresno
- Community Water Center
- R.L. Schafer and Associates
- Self-Help Enterprises
- Sequoia River Lands
- Tulare Basin Wildlife Partners

Legislative Contacts

- Congressman Kevin McCarthy
- Congressman Jim Costa
- Congressman Devin Nunes
- Senator Dean Florez
- Senator Roy Ashburn
- Assembly Member Danny Gilmore
- Assembly Member Jean Fuller

Prepared by:



Funding assistance for the Poso Creek Integrated Regional Water Management Plan was provided by the California Department of Water Resources through a Proposition 50 planning grant.

* Project 3 will receive Federal planning money in 2010. Projects 6, 8, 12, and 14 all received Federal funding for construction in 2009. Project 22 received Federal planning money in 2008. Federal funds were provided to projects 29, 23, and 25 in 2009.

POSO CREEK

IRWM Plan – Summary of Findings & Conclusions
and Plan Implementation



Summary of Findings and Conclusions

Based on Poso Creek Integrated Regional Water Management (IRWM) Plan as Adopted July 2007

Findings and conclusions resulting from the Proposition 50 funded planning effort that were summarized in the Adopted Plan are repeated herein. Since plan adoption, court-ordered actions have further constrained the State Water Project (SWP) supplies.

Where applicable, and unless noted otherwise, projected water supplies are based on CalSim II – Study 4 for the SWP, and post-San Joaquin River Settlement conditions for the Friant Division of the Central Valley Project (CVP). While averages have been cited for the purpose of assessing the long-term water supply implications, it must be recognized that water demands occur in every year and these averages reflect water occurring in the wetter years and are not a true measure of water supply reliability.

1. Conjunctive-use projects developed on a district-by-district basis to acquire and import surface water supplies to mitigate declining groundwater levels in the Region were generally complete by the mid to late 1970s (with some completed much earlier). In the subsequent 25 to 30 years, groundwater levels have been relatively "stable" over the Region, going up during wet periods and down during dry periods.
2. Water demands in the Region over the next 20 to 30 years are expected to be comparable to the last 25 years, inasmuch as irrigated acreage has been relatively "stable" and that, in general, as urban demand increases, the agricultural demand will decrease (assuming that it is irrigated agricultural land that is urbanized, which has been the trend to date), with no significant net change in demand.
3. Surface water has been a significant part of the Region's water supply, averaging about ¾ million acre-feet annually over last 25 years. The historical average use of local surface water supplies (primarily Kern River and Poso Creek) has amounted to about one-third of the total surface water supplies of the Region, with imported supplies making up the remaining two-thirds. There are three principal sources of surface water, which are listed following, along with the approximate contribution of each to the total for the Region:

» Local (Kern River and Poso Creek)	34%
» Central Valley Project	42%
» State Water Project	24%
4. The projected long-term average annual availability of surface water supplies to the Region is on the order of 0.7 million acre-feet, which is less than the 0.75 million acre-feet which was historically diverted for use within the Region. (This estimate is based on availability at the source of supply; does not reflect consideration of any conveyance or absorptive capability limitations; is based on the minimum "share" of unregulated SWP and CVP supplies; and does not include third-party banking.)
5. It is projected that each of the three principal sources of surface water will be reduced in the future relative to the last 25 years. Accordingly, the reduction in water supply reliability is the number one water resource management issue for the Region. The

total reduction in diversion and use of these sources of supply was estimated to be on the order of 100,000 acre-feet, with about one-third of the reduction attributable to each source of supply.

- » Kern River - The reliability of the Kern River supplies that have been used in the Region in the past is threatened, owing to the expiration of several long-term contracts in 2011, as well as ongoing litigation.
 - » State Water Project - In recent years, environmental and water quality issues in and surrounding the Sacramento-San Joaquin River Delta (Delta) have limited the ability to export water south of the Delta, which has reduced the reliability of SWP water supplies and CVP-Delta supplies available to the Region .
 - » Central Valley Project - The reliability of CVP supplies from the Friant Division has been threatened for many years and will be significantly impacted under an agreement which was recently reached in settlement of long-standing litigation, which centered on restoration of the San Joaquin River below Friant Dam.
6. The total irrigated acreage in the Region has remained fairly stable over the last 25 years, ranging from 340,000 to 375,000 acres, with an average of about 350,000 acres. These lands rely on the conjunctive use of surface water and groundwater, either directly or indirectly. To the extent that surface water supplies are short, groundwater is used to satisfy irrigation water requirements, inasmuch as these lands largely overlie useable groundwater.
 7. The acreage planted to permanent crops has been increasing, with over 60 percent presently planted to nuts, grapes, and citrus. Twenty-five years ago, permanent plantings amounted to about 40 percent of the irrigated acreage. Presently, it is estimated that the Region produces at least \$2 billion annually in agricultural commodities.
 8. Presently, about 120,000 people reside within the Region and rely exclusively on pumped groundwater for their water needs. These are primarily located within the communities of Delano, Wasco, Shafter, McFarland, Earlimart, Richgrove, and Lost Hills, which are economically-disadvantaged based on 2000 census tract data compared to the threshold for disadvantaged communities . The population approximately doubled between 1990 and 2006, which implies an average growth rate of about 5 percent per year.
 9. The projected long-term average annual applied water demand for the Region is on the order of 1.3 million acre-feet. This includes consideration of agricultural (at 3.5 acre-feet per acre), municipal and industrial, and environmental uses.
 10. With relatively "stable" water levels over the last 25 years; with the demand for water projected to remain about the same; and with less surface water projected for the future; groundwater levels will decline, with a corresponding increase in the use of power and energy resources, creating both an environmental and economic burden.
 11. With a common groundwater basin shared by all uses within the Region, any decline in water levels will be felt by all uses, i.e., there will be an adverse economic effect on both irrigated agriculture and the already economically-disadvantaged communities that rely on groundwater in whole or in part. By the same token, anything that is done to

mitigate declines in water levels, such as projects identified in this Plan, will benefit all uses.

12. The operations of each district within the Poso Creek Regional Water Management Group (RWMG) reflect, to a large extent, conjunctive-use operations as an individual district. There is the potential to increase the use of available surface water supplies within the Region, and thereby enhance conjunctive-use operations, by coordinating the use of each district’s water and water management assets within the Region.
13. Access to local, state, and federal water supplies and conveyance facilities, which is provided by combining the assets of the districts within the Region, creates both the flexibility and the opportunity for regional water management that can realize water supply accomplishments that individual districts cannot. The key to unlocking this potential is conveyance between districts within the Region.
14. The ability to move water between districts within the Region is presently limited both physically and institutionally. Accordingly, both structural and non-structural measures were identified to address this observation.
15. Non-structural measures that have “risen to the top” include:
 - » An organizational structure and environmental compliance framework that allows for exchange, transfer, and banking approvals to be in place to take advantage of unregulated and unscheduled water supplies that are available from time to time, often on short notice.
 - » The necessary approvals to move water from different sources around within the Region as required to maximize the utility of the Region’s assets and thereby maximize water supply and reliability to the Region.
 - » A means of maintaining equity as between districts within the Region, in terms of water and/or dollars.
16. Structural measures involving conveyance improvements include canals, pipelines, and pumping plants. (Implementation projects for near-term funding proposals are listed in Table ES-7 and shown on Figure ES-14.)
17. Water supply operations studies indicate that water will be available from time to time in excess of the absorptive capability of the contracting districts. This observation creates both the potential and the need to regulate these supplies within the remaining absorptive capability of other districts in the Region. Most of this need is projected to involve CVP-Friant supplies
18. Most of the opportunities to increase the absorption of surface water supplies rest with the unscheduled supplies; SWP Article 21 water and CVP-Friant Other water. However, competition for these supplies can be expected to increase in the future as other areas of the state address similar water supply reliability issues. While the minimum “share” of these supplies can be estimated, the amount that may be available beyond the minimum is unknown, and could be significant. The average annual minimum share of these unscheduled supplies is estimated at about 35,000 acre-feet, consisting of about one-third SWP water and two-thirds CVP water.

19. The projected average annual system-wide availability of Other Friant water is about 195,000 acre-feet, and the minimum share of this supply that would be available to contracting districts within the Region is estimated at about 23,000 acre-feet. However, it is reasonable to assume that there will not be any measurable capacity to wheel this water during the months of May through August. Under this assumption, the 23,000 acre-feet at Friant Dam could be reduced to about 15,000 acre-feet canal-side, i.e., about one-third of this supply occurs after April on average, when available capacity in the Friant-Kern Canal would be a constraint.
20. The projected average annual system-wide availability of Article 21 water is about 262,000 acre-feet, and the minimum share of this supply that would be available to contracting districts within the Region is estimated at about 12,000 acre-feet (based on CalSim II Study 4 for 2005 conditions).
21. When considered on a district-by-district basis, it is projected that, on average over the long term, about 21,000 acre-feet of CVP-Friant water will be in excess of the absorptive capability of the contracting districts within the Region. It is further estimated that about two-thirds of this amount could be absorbed within the Region with the appropriate agreements and institutional and regulatory approvals, with about one-half going directly to an irrigation demand and the remainder to spreading.
22. Strategies to mitigate projected reductions in the Region's surface water supplies include the following:
 - » Maximize use of available surface water supplies through the use of existing absorptive capability by coordinating mismatches between supply and demand within the Region, i.e., matching supply that exceeds demand in one district with demand that exceeds supply in another district. This applies to both irrigation absorptive capability as well as spreading absorptive capability.
 - » Evaluate feasibility of developing additional absorptive capability if the available surface water supplies cannot be substantially regulated through the use of existing absorptive capacity.
 - » Consider development of third-party water-banking arrangements that bring more water into the Region than the Region is obligated to return (such as is the case with an unbalanced banking program) and/or bring dollars into the Region that can be used to help purchase waters of opportunity.
 - » Support improving water supply reliability from the Delta.
 - » Support implementation of the water management goal of the San Joaquin River Settlement.
 - » Support the restoration of lost capacity in the Friant-Kern Canal as well as expanded capacity, in order to maximize the use of contract supplies.
23. Experience has shown that water conveyance and distribution facilities, in addition to the purposes for which they were designed, have been used in ways that were not contemplated when they were designed and constructed. In other words, the accomplishments or benefits have typically far exceeded that which was originally

estimated. While we are used to seeing a contingency applied to project costs, experience suggests that it may be appropriate to apply a contingency to benefits as well.

24. Due to the overwhelming need to address water supply issues within the Region, the RWMG prioritized water management strategies into two groups; (1) highest priority strategies considered for implementation; and (2) strategies considered for project integration. As Projects are implemented to meet the highest priorities for the Region, secondary benefits that each project may provide will be integrated into the regional solution. These benefits may include, flood control, ecosystem restoration, environmental and habitat protection and improvement, reduction in use of power and energy, water quality improvements, subsidence mitigation, and many others.
25. Individual water agencies have been encouraged and incentivized (through eligibility requirements for grant funds) to work together to address water resource management issues on a regional level. In order for this to be effective, some of the institutional and regulatory constraints that have acted as disincentives to working together and realizing truly regional water resource management must be addressed.
26. While the estimated capital cost to implement all of the proposed water management measures is on the order of \$250 million (at 2007 price levels), it is noted that the costs are not strictly additive and that significant benefits can be achieved with initial expenditures which are far less than this total amount. (The estimated cost to implement projects proposed for the near-term funding opportunities is \$65 million, as shown in Table ES-7.)
27. In addition to local monies, financing of non-structural as well as structural measures is expected to include grants, loans, and possibly revenue from development of third-party banking programs.
28. Most of the proposed non-structural and structural projects identified in the planning process are ready for implementation and some are even under construction. Therefore, most of the proposed structural projects were categorized as Tier 1 projects, which means they are ready for implementation and contain phases that can be completed within three years.
29. The RWMG has worked very effectively together during the IRWMP process over the last two years and has already realized benefits from that process. Owing to this experience, the manageable size of the RWMG, and their common goals, they are well positioned to continue with project implementation.

Poso Creek IRWM Plan Implementation

The Plan

The Poso Creek IRWM Plan Regional Water Management Group was formed in March 2005. The RWMG adopted the IRWM Plan in July 2007, which functions as a living document. Since adoption, several stakeholders have been involved in updating the Plan, including: Self-Help Enterprises, Community Water Center, Sequoia River Lands Trust, Tulare Basin Wildlife Partners, and California Water Institute (CWI), CSU Fresno.

The RWMG meets the first Tuesday of each month at the Semitropic WSD office. Presently the RWMG is implementing Water Management Strategies identified during the Plan development. The status of Plan’s Water Management Measures and Projects are listed herein (A U.S. Bureau of Reclamation-funded Water 2025 System Optimization Review will refine the operations study and provide a detailed evaluation of the projects in the Plan).

Status of Water Management Measures and Plan Projects

Expanding In-Lieu Service Areas

- D** **No. 1 – Connect Friant-Kern Canal Turnout to Cawelo’s North System and No. 2 – Ninth Avenue Pipeline;** being evaluated by the individual water districts.
- S** **No. 3a – Stored Water Recovery Unit;** is being constructed in phases under a design/build contract. System X is ready for construction (\$35M); System Y (\$10.2M) and System Z (\$17.9M) are in need of design.
- C** **No. 3b – Expand P-1030 In-Lieu Service Area;** construction completed (\$5M) with interconnection to SSJMUD operational.
- C** **No. 3c – New P-565 In-Lieu Service Area;** construction completed (\$15M) with interconnection to NKWSD operational.

Direct Recharge

- D** **No. 4 – GW Banking North of DEID with Pixely ID;** will be evaluated within a separate Reclamation-funded System Optimization Review received by Pixely ID.
- D** **No. 5 – GW Banking Conveyance Improvements to North Kern WSD Recharge and Recovery Facilities;** re-evaluated by the Poso Creek IRWM RWMG and ranked as a high priority project (estimated cost \$17.5M).
- S** **No. 6 – Pond Poso Spreading Grounds, Retention Ponds, and Conveyance Enhancements;** Phase I constructed in 2007 (\$3.2M); Phase II ready for construction (\$8M).
- S** **No. 8 – Turnipseed GW Banking Project Enhancement along White River in DEID;** Phase I is under construction (\$1M); Phase II is ready for construction (\$19M).
- D** Both **No. 7 – Rag Gulch G-W Banking Project** and **No. 9 – White River G-W Banking in Rag Gulch** were considered, evaluated, and found not cost effective at this time.

Modify Conveyance Systems

Projects 10 through 19 will be evaluated for the amount of water they are capable of managing and their cost/benefits refined as part of the Reclamation funded Water 2025 System Optimization Review.

- S** **No. 10 – Calloway Canal Improvements;** CEQA is complete, district owns right-of-way, design is 85% complete (Calloway Canal Lining and Reverse Flow Pump Stations cost estimated \$29M).

C	= Construction Complete
S	= Shovel-Ready for Construction
P	= In Progress
D	= Planning/Preliminary Design

- 👉 **S** **No. 11 – Calloway Canal to Cross Valley Canal Interconnection;** district has agreements on right-of-way, design is 75% complete (Construction cost estimate \$11.3M for Canal Alternative; \$17.3M for Pipeline Alternative).
- 👉 **S** **No. 12 – Calloway Canal to Lerdo Canal Interconnection;** district owns right-of-way, design is in progress (\$21.8M estimate for 500 cfs capacity).
- D** **No. 13 – Multi-District Conveyance Facility;** this large conveyance project being considered for funding by Reclamation to support the SJR Settlement Water Management Goal (\$55M to \$85M, depending on how components overlap with other projects).
- 👉 **S** **No. 14 – North Interconnection between NKWSD/Shafter-Wasco;** Districts applied for “Water for America” funds to construct project (under construction, \$1.2M).
- D** **No. 15 – Pilot Arsenic Treatment Plant;** Semitropic is evaluating under the SWRU (estimated ≈\$20M).
- D** **No. 16 – Reverse Flow in the Friant-Kern Canal;** considered in Federal Legislation along with capacity improvements to the Friant-Kern Canal to alleviate constraints (≈\$3M).
- D** **No. 17 – Shafter-Wasco/Semitropic Interconnection on Kimberlina Road;** considered in district planning for flexibility in operations, not identified for any specific funding sources (conceptual design complete, \$12.2M).
- D** **No. 18 – Shafter-Wasco/Semitropic Interconnection on Madera Avenue;** considered in district planning for flexibility in operations, not identified for any specific funding sources (concept design complete, \$4.8M).
- 👉 **S** **No. 19 – South Interconnection between NKWSD/Shafter-Wasco;** Districts applied for “Water for America” funds to construct project (ready for construction, \$0.6M).

Non-Structural Projects

- P** **No. 20 – Energy Usage;** Solar power is being tested and considered by districts and DACs in the region.
- P** **No. 21 – Joint Powers Authority;** Poso Creek IRWM RWMG joined the Tulare Basin JPA for the Tulare Basin and may consider other governance agreements, as needed, for Regional projects that overlap multiple districts or planning areas.
- P** **No. 22 – Institutional Agreements and Governance for IRWMP Implementation;** The RWMG adopted an MOU for governance in March 2009; RWMG is coordinating with a larger SJV Planning Group through the JPA for the Tulare Basin Water Entities; the RWMG is implementing “Non-Structural” water management measures; the RWMG is coordinating with the DACs and the Kern IRWMP.
- P** **No. 23 – GW Banking for Parties Outside of Poso Creek IRWMP Region;** Semitropic has formed a JPA with Rosamond. NKWSD and Semitropic continue to implement and explore additional agreements for outside banking interests. Districts in Southern California are expressing interest in banking supplies south of the Delta. Reclamation has expressed an interest in GW Banking in Semitropic to increase CVP reliability.

C	= Construction Complete
👉 S	= Shovel-Ready for Construction
P	= In Progress
D	= Planning/Preliminary Design

P No. 24 – Optimizing Region’s Pumping Lifts; presently, districts implement individual programs to minimize energy costs.

P No. 25 – Enhance Groundwater Monitoring and/or Modeling; several RWMG districts were successful under the recent DWR Local GW Assistance grant program. Semitropic and NKWSD have led the GW monitoring and modeling within the Plan Area. Semitropic is in the process of updating their groundwater model for Reclamation to use in evaluating the SWRU. A regional effort may be useful to coordinate with the larger planning area, especially considering the Delta pumping restrictions and the SJR Settlement. This may be considered in the Kern IRWMP and Tulare Basin JPA level of planning.

Enhance Environmental Resources

D No. 26 – Wildlife Improvement Projects in IRWMP Region; Semitropic Wildlife Improvement District is working with the Tulare Basin Wildlife Partners to improve water conveyance facilities in the Kern National Wildlife Refuge area that will add flexibility for delivery of supply. The team has obtained a seed grant to move the concept design for the West-East Pintail Slough canal towards a construction ready design. This water conveyance enhancement is being evaluated with other concepts to increase the ability for the KNWR, private farms, and duck clubs to match water deliveries with demand at differing times of the year.

D No. 27 - Environmental Water Management in Support of Wildlife Settlements Outside of IRWMP Region; RWMG CVP Contractors will be part of Reclamation’s effort to implement the SJR Water Management Goal to restore SJR Habitat flows. The location of the RWMG is well positioned to help off-set reduced pumping south of the Delta by use of GW Banking to help regulate surface supplies. Opportunities exist to mitigate the projected loss to the Region’s water supply for DACs who share the local GW supply, environmental, urban, and agriculture water needs.

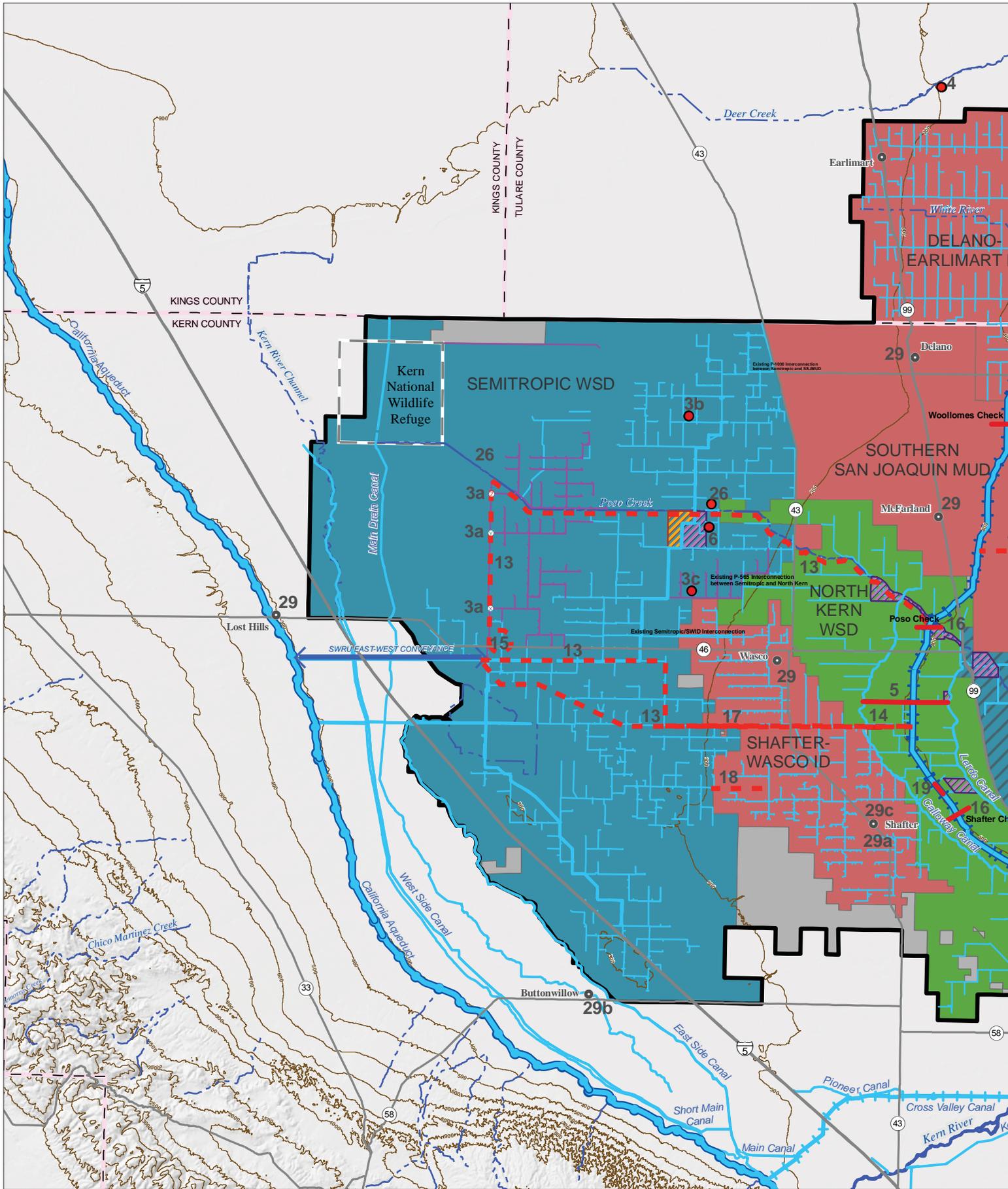
Enhance Flood Control

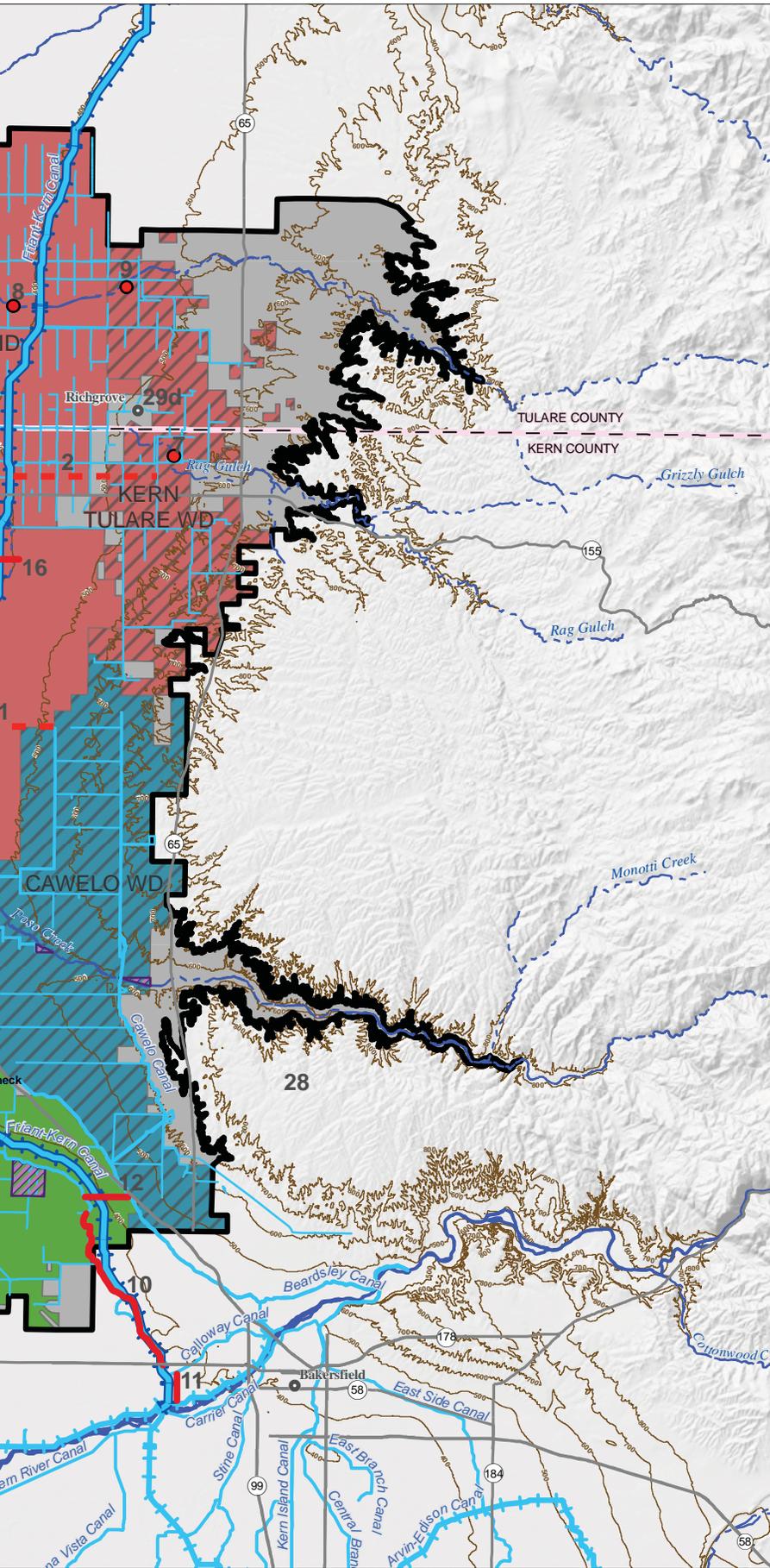
D No. 28 - The Poso Creek Flood Control and Water Conservation Reservoir Project; this project was added to the Poso Creek IRWMP in May of 2008 and has potential to fit into the Prop 84 and 1E funding opportunities. The COE’s evaluation of this project is coordinated with R. L. Schafer and Associates.

Assist Economically Disadvantaged Communities

D No. 29 - Enhance Water Supply, address Drinking Water Treatment Needs, and upgrade Waste Water Treatment Facilities; progress was made following Plan adoption to include projects for DACs within the Poso Creek IRWMP Area. David Warner of Self-help Enterprises provided the RWMG with an organized assessment of DAC needs for the Poso Creek Planning Area and for all of Kern County. The RWMG has coordinated with the “North County” group of cities within the Kern IRWMP to help integrate the water related projects of the communities. The RWMG expects that the Disadvantaged Communities will continue to be assisted by Self Help Enterprises and other planning groups within the Region. Since July 2008, Self-Help has successfully helped two of the communities within the Poso Creek Plan Area secure funding (\$2M each) for a waster water treatment facilities. Communities are looking to find funding to make their projects construction ready or whole and the RWMG will recommend a design fund as part of an implementation grant application to meet their collective needs.

	= Construction Complete
	= Shovel-Ready for Construction
	= In Progress
	= Planning/Preliminary Design





PROJECTS SUMMARY (LOCATIONS SHOWN ON MAP)

- P = In Progress S = Shovel-Ready for Construction
- D = Planning/Preliminary Design C = Construction Complete

Expand In-Lieu Service Areas

- D 1 Connect Friant-Kern Canal Turnout to Cawelo's North System
- D 2 Ninth Avenue Pipeline
- S 3a Stored Water Recovery Unit
- C 3b Expand P-1030 In-Lieu Service Area
- C 3c New P-565 In-Lieu Service Area

Expand Direct Recharge

- D 4 G-W Banking North of DEID with Pixley ID
- D 5 G-W Banking Conveyance Improvements to North Kern WSD Recharge and Recovery Facilities
- S 6 Pond Poso Spreading Grounds
- D 7 Rag Gulch G-W Banking Project
- S 8 Turnipseed GW Banking Project Enhancement along White River in DEID
- D 9 White River G-W Banking in Rag-Gulch

Modify Conveyance Systems

- S 10 Calloway Canal Improvements
- S 11 Calloway Canal to Cross Valley Canal Interconnection
- S 12 Calloway Canal to Lerdo Canal Interconnection
- D 13 Multi-District Conveyance Facility
- S 14 North Interconnection between North Kern WSD/Shafter-Wasco
- D 15 Pilot Arsenic Treatment Plant
- D 16 Reverse Flow in the Friant-Kern Canal
- D 17 Shafter-Wasco/Semitropic Interconnection on Kimberlina Road
- D 18 Shafter-Wasco/Semitropic Interconnection on Madera Avenue
- S 19 South Interconnection between North Kern WSD/Shafter-Wasco

**NON-STRUCTURAL PROJECTS
(SOME LOCATIONS NOT SHOWN ON MAP)**

- P 20 Energy Usage
- P 21 Joint Powers Authority
- P 22 Institutional Agreements and Governance for IRWMP Implementation
- P 23 GW Banking for Parties Outside of Poso Creek IRWMP Region
- P 24 Optimizing Region's Pumping Lifts
- P 25 Enhance Groundwater Monitoring and/or Modeling

ENHANCE ENVIRONMENTAL RESOURCES

- D 26 Wildlife Improvement Projects in IRWMP Region
- D 27 Environmental Water Management in Support of Wildlife Settlements Outside of IRWMP Region

ENHANCE FLOOD CONTROL

- D 28 The Poso Creek Flood Control and Water Conservation Reservoir Project

ASSIST ECONOMICALLY DISADVANTAGED COMMUNITIES

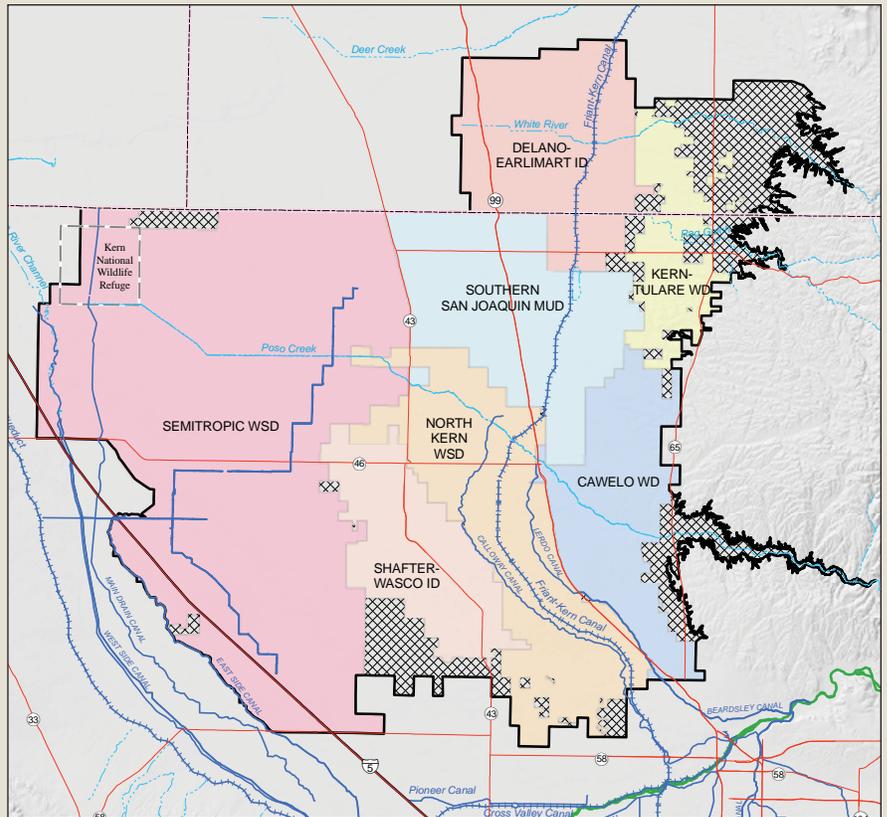
- D 29 Enhance Water Supply, address Drinking Water Treatment Needs, and upgrade Waste Water Treatment Facilities



POSO CREEK IRWMP

Management Group

Your interest in the Region's water resources and views on how they should be managed are important to the RWMG and stakeholders. We welcome your input, reviews, and comments on the Poso Creek IRWM Plan. The RWMG continues to meet monthly to implement the plan. The RWMG public meetings are typically held at 12 pm on the first Tuesday of each month at the Semitropic Water Storage District office. You may also participate in the meetings by conference call.



Please contact Mr. Paul Oshel, District Engineer for Semitropic Water Storage District, at (661) 758-5113, for information or to answer questions on behalf of the following seven entities:



Wilmar L. Boschman
General Manager
Semitropic Water Storage District



Dana S. Munn
Engineer-Manager
North Kern Water Storage District



David R. Ansolabehere
General Manager
Cawelo Water District



Brian Hockett
District Manager
North West Kern Resource Conservation District (NWKRC)



Dale R. Brogan
General Manager
Delano-Earlimart Irrigation District



Jerry L. Ezell
General Manager
Shafter-Wasco Irrigation District



Steven C. Dalke
General Manager
Kern-Tulare Water District



POSO CREEK IRWMP

Management Group

SYNOPSIS

PUBLICATION DATE: FEB 2009

The purpose of the Poso Creek Integrated Regional Water Management Plan (July 2007) is to provide a framework for (1) coordinating groundwater and surface water management activities through regional objectives, and (2) implementing the measures necessary to meet those objectives.

While the Plan includes a number of findings, the overriding conclusion is that surface water supplies available to the Region will be significantly reduced in the future (relative to historical conditions) and that there will be a corresponding decline in groundwater levels as groundwater is used to make up the reduction in surface water supplies if actions are not taken. This decline will result in an increase in the use of power and energy resources to pump groundwater, creating both an environmental and economic burden. This economic burden will be felt by all uses that rely in whole or in part on pumped groundwater --- whether agricultural, municipal, or industrial. While the common groundwater basin is the reason that all overlying uses will feel the impact, it is also the reason that anything that is done to mitigate declines in water levels, such as projects identified in the Plan, will benefit all uses. As a generalization, the Plan contemplates projects, both structural and non-structural, that will allow the agencies within the Region to maximize the use of their contract water supplies and other supplies that may be available from time to time. In particular, these projects provide the means for coordinating the assets, needs, and operations of the agencies within the Region, with the end result being improved water supply reliability.

Each of the Boards of Directors of the districts that make up the Regional Management Group adopted the Plan in its current form, which is represented by the Plan objectives, and the findings and conclusions.



Poso Creek Integrated Regional Water Management Plan Management Group

Semitropic Water Storage District • Delano-Earlimart Irrigation District • Shafter-Wasco Irrigation District • North Kern Water Storage District
North West Kern Resource Conservation District • Cawelo Water District • Kern-Tulare Water District

for more information please contact: Mr. Paul Oshel, Semitropic Water Storage District Engineer, (661) 758-5113

PLAN OBJECTIVES

- Maintain and improve water supply reliability.
- Maintain groundwater levels at economically viable pumping lifts.
- Protect the quality of groundwater and enhance where practical.
- Maintain water supply costs at a level commensurate with the continued viability of the agricultural economy which has developed in the area.
- Enhance monitoring activities to meet groundwater level and water quality goals.
- Maintain and/or enhance environmental resources within and outside of the study area.
- Enhance flood control in the study area.

FINDINGS AND CONCLUSIONS

- The Region has a water supply problem (with the long-term average annual reduction in surface water supplies projected to be on the order of 100,000 acre-feet).
- By working together, the problem can be mitigated but not eliminated, at least with currently available supplies.
- The Regional Management Group is the right forum for working together, which includes:
 - ◇ Cawelo Water District
 - ◇ Delano-Earlimart Irrigation District
 - ◇ Kern-Tulare Water District
 - ◇ North Kern Water Storage District
 - ◇ North West Kern RCD
 - ◇ Semitropic Water Storage District (lead agency)
 - ◇ Shafter-Wasco Irrigation District
- Priority should be given to enhancing conveyance between districts within the Region.
- Both structural and non-structural measures are required.

NON-STRUCTURAL MEASURES

- An organizational structure and environmental compliance framework that allows for banking, exchange, and transfer approvals to be in place to take advantage of unregulated and unscheduled water supplies that are available from time to time, often on short notice.
- The necessary approvals to move water from different sources around within the Region as required to maximize the utility of the Region's assets and thereby maximize water supply and reliability to the Region.
- A means of maintaining equity as between districts within the Region, in terms of water and/or dollars.

STRUCTURAL MEASURES

- Structural measures include one or more conveyance connections between:
 - ◇ The Calloway and Lerdo canals.
 - ◇ North Kern and Shafter-Wasco.
 - ◇ Shafter-Wasco and Semitropic.
 - ◇ The Calloway and Cross Valley canals.

To implement the structural and non-structural measures, grant funds will be pursued to supplement local monies, where specific projects would be proposed and where cost sharing among the members of the Group would have to be developed.

Finally, it is noted that the Plan is considered to be a living document, which will change in response to new information, changed conditions, or other factors.



Water Reliability Identified as the Highest Priority in Poso Creek IRWMP

The Poso Creek Integrated Regional Water Management Plan Area receives surface water from three sources: the State Water Project (SWP), the Central Valley Project (CVP) and the Kern River. Historically, water from these sources has been adequate; however, due to competing environmental, urban, and agricultural uses outside of the Plan Area, the future reliability of these sources is projected to decline.

Region's Assets, Challenges, and Water Management Measures to Implement

Due to the declining reliability of surface water deliver into the Plan Area, the conjunctive management of surface and groundwater supplies is going "out of balance." In order restore this balance, water districts in the Plan Area need to absorb as much wet year surplus water as is available.

Absorbing wet year surplus water requires the ability to quickly accept water and to distribute this water to various in-lieu and direct recharge areas dispersed among the individual districts. For the region to accept these large volumes of surplus water when available, it is essential to increase the physical and institutional capacity to move water between individual district facilities within the Plan Area.

In addition to sustaining local water supply reliability, the region's aquifers have capacity to bank wet year water on behalf of outside agencies. Storing outside agencies' water provides both a regional and statewide benefit with respect to water supply reliability and drought response, a benefit that is likely to increase in importance if climate change reduces snow pack and increases the proportion of precipitation needing to be stored in surface water and groundwater reservoirs.

Enhance Conjunctive Use Facilities Within the Region as a Partial Solution

The addition of interconnections and operating agreements between individual districts that receive water from the SWP, CVP, and Kern River will allow the region to increase the absorptive capacity and to take advantage of wet year surplus water. Cooperation between districts and enhanced conjunctive management will provide a partial solution to the region's projected imbalance of surface water and groundwater supplies.

The Poso Creek Plan Area supports:

- Disadvantaged communities who share the common groundwater basin
- Environmental water management needs within and outside of the Plan Area
- An agricultural economy of over \$2 billion dollars
- The Joint Powers Agreement for Tulare Lake Hydrologic Region Water-Related Entities
- The Tulare Lake Basin Portion of Kern County IRWM



Poso Creek

Poso Creek Integrated Regional Water Management Plan Management Group

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North West Kern Resource Conservation District • Cawelo Water District • Kern-Tulare Water District • Rag Gulch Water District*

for more information please contact: Mr. Paul Oshel, Semitropic Water Storage District Engineer, (661) 758-5113



Poso Creek IRWM Plan Participants

Regional Management Group

Semitropic Water Storage District
Cawelo Water District
Delano-Earlimart Irrigation District
Kern Tulare Water District
North Kern Water Storage District
North West Kern Resource Conservation District
Rag Gulch Water District
Shafter-Wasco Irrigation District

Stakeholders and Plan Participants

Buena Vista Water Storage District
Lost Hills Water District
Rosedale-Rio Bravo Water Storage District
Southern San Joaquin Municipal Utility District
Kern County Water Agency
Friant Water Users Authority
Kern County Board of Supervisors
City of Delano
City of McFarland
City of Shafter
City of Wasco
Lost Hills Utility District
Kern National Wildlife Refuge
Paramount Farms

State and Federal Agencies

California Department of Fish and Game
California Department of Water Resources
U.S. Bureau of Reclamation

Stakeholders and Participants added following the Plan adoption July, 2007

California Water Institute, CSU Fresno
Community Water Center
R.L. Schafer and Associates
Self-Help Enterprises
Sequoia River Lands
Tulare Basin Wildlife Partners

Legislative Contacts

Congressman Kevin McCarthy
Congressman Jim Costa
Congressman Devin Nunes
Senator Dean Florez
Senator Roy Ashburn
Assembly Member Nicole Parra
Assembly Member Jean Fuller
Assemblyman Bill Maze



Poso Creek Integrated Regional Water Management Plan Management Group

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SUMMARY OF POSO CREEK IRWMP IMPLEMENTATION—AUGUST, 2008

THE PLAN

1. **Formed and Functional Group;** the Poso Creek IRWM RMG is intended to be a manageable size - continues to meet first Tuesday of the month.
2. **Adopted Plan in July 2007;** functions as a living document - since adoption, several stakeholders have participated: Self-Help Enterprises, Community Water Center, Sequoia River Lands Trust, Tulare Lake Basins Wildlife Partners, and CWI, CSU Fresno.
3. **Implementation and Planning Strategies;** Presently implementing Water Management Strategies identified during the Plan development (A U.S. Bureau of Reclamation-funded Water 2025 System Optimization Review will refine the operations study and provide a detailed evaluation of the projects in the Plan).

STATUS OF PLAN PROJECTS (WATER MANAGEMENT MEASURES AND PROJECT NUMBERS)

EXPANDING IN-LIEU SERVICE AREAS

No. 1 – Connect Friant-Kern Canal Turnout to Cawelo’s North System and No. 2 – Ninth Avenue Pipeline; being evaluated by the individual water districts.

No. 3a – Stored Water Recovery Unit; in design and under construction.

No. 3b – Expand P-1030 In-Lieu Service Area; construction completed.

No. 3c – New P-565 In-Lieu Service Area; under construction with interconnection to NKWSD.

DIRECT RECHARGE

No. 4 – GW Banking North of DEID with Pixely ID; will be evaluated within a separate Reclamation-funded System Optimization Review received by Pixely ID.

No. 5 – GW Banking Conveyance Improvements to North Kern WSD Recharge and Recovery Facilities; identified by Poso Creek IRWM RMG as high priority project.

No. 6 – Pond Poso Spreading Grounds; partially constructed in 2007.

No. 7 – Rag Gulch G-W Banking Project; No. 8 – White River G-W Banking for DEID; and No. 9 – White River G-W Banking in Rag Gulch were considered, evaluated, and found not cost effective at this time.



Poso Creek Integrated Regional Water Management Plan Management Group

Semitropic Water Storage District • Delano-Earlimart Irrigation District • Shafter-Wasco Irrigation District • North Kern Water Storage District
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Modify Conveyance Systems

– projects 10 through 19 will be evaluated for the amount of water they are capable of managing and their cost/benefits refined as part of the Reclamation funded Water 2025 System Optimization Review.

No. 10 – Calloway Canal Improvements, No. 11 – Calloway Canal to Cross Valley Interconnection, and No. 12 – Calloway Canal to Lerdo Canal Interconnection; NKWSD is evaluating these facility improvements.

No. 13 – Multi-District Conveyance Facility; this large conveyance project is being considered for funding by Reclamation as part of the SJR Settlement Water Management Goal.

No. 14 – North Interconnection between NKWSD/Shafter-Wasco; under construction.

No. 15 – Pilot Arsenic Treatment Plant; Semitropic is evaluating under the SWRU.

No. 16 – Reverse Flow in the Friant-Kern Canal; considered in Federal Legislation along with capacity improvements to the Friant-Kern Canal to alleviate constraints.

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No. 18 – Shafter-Wasco/Semitropic Interconnection on Madera Avenue; considered in district planning for flexibility in operations, not identified for any specific funding sources.

No. 19 – South Interconnection between NKWSD/Shafter-Wasco; considered a lower priority than the North Interconnection.

NON-STRUCTURAL PROJECTS

No. 20 – Energy Usage; may be considered as part of the Water 2025 SOR.

No. 21 – Joint Powers Authority; Poso Creek IRWM RMG joined the Tulare Basin JPA for the Tulare Basin and may consider other governance agreements, as needed, for Regional projects that overlap multiple districts or planning areas.

No. 22 – Institutional Agreements and Governance for IRWMP Implementation; Poso Creek RMG is committed to interacting with a larger SJV Planning Group through a JPA; the Water 2025 SOR will identify Institutional Constraints for Plan implementation.

No. 23 – GW Banking for Parties Outside of Poso Creek IRWMP Region; Semitropic has formed a JPA with Rosamond. NKWSD and Semitropic continue to implement and explore additional agreements for outside banking interests. Districts in Southern California are expressing interest in banking supplies south of the Delta. Reclamation has expressed an interest in GW Banking through Semitropic in support of CVP reliability and environmental decisions.

No. 24 – Optimizing Region's Pumping Lifts; a long-term concept; presently, districts implement individual programs.

No. 25 – Enhance Groundwater Monitoring and/or Modeling; several RMG districts were not successful under the recent DWR Local GW Assistance grant program. Semitropic and NKWSD have led the GW monitoring and modeling within the Plan Area. A regional effort may be useful to coordinate with the larger planning area, especially considering the Delta pumping restrictions and the SJR Settlement. This may be a good topic for the Kern County and Tulare Basin level of planning.

ENHANCE ENVIRONMENTAL RESOURCES

No. 26 – Wildlife Improvement Projects in IRWMP Region; this is of interest for the TLBW Group since one of their priority projects, Goose Lake, is within the Poso Creek IRWMP Area. Semitropic will submit a WUE Concept Proposal for conveyance improvements to Goose Lake.

No. 27 - Environmental Water Management in Support of Wildlife Settlements Outside of IRWMP Region;

Poso Creek RMG CVP Contractors will be part of Reclamation's effort to implement the SJR Water Management Goal to restore SJR Habitat flows. The location of the Poso Creek RMG is well positioned to help off-set reduced pumping south of the Delta by use of GW Banking to help regulate surface supplies. Opportunities exist to mitigate the impact to the Region's water supply for DACs who share the local GW supply, environmental, urban, and agriculture water needs.

ENHANCE FLOOD CONTROL

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ASSIST ECONOMICALLY DISADVANTAGED COMMUNITIES

No. 29 - Enhance Water Supply and Treatment Facilities; progress was made following Plan adoption that includes waste water treatment projects for DACs within the Poso Creek IRWMP Area. David Warner of Self-help Enterprises provided the RMG with an organized assessment of DAC needs for the Poso Creek Planning Area and for all of Kern County. The Poso Creek RMG will continue to help integrate with the water supply needs of the communities, however, it is expected by the RMG that the Disadvantaged Communities will be best assisted if Self Help Enterprises leads this coordination. In July 2008, Self-Help was successful in helping Buttonwillow secure \$2M in funding for a waster water treatment facility. Buttonwillow is looking to find the remaining \$400,000 in funding for the project.



POSO CREEK IRWM PLAN PROGRESS REPORT

Water Reliability Identified as the Highest Priority in Poso Creek IRWMP

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- The Tulare Lake Basin Portion of Kern County IRWM





Poso Creek IRWM Plan Participants

PUBLICATION DATE: FEB 2009

Regional Management Group

Semitropic Water Storage District
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Legislative Contacts

Congressman Kevin McCarthy
Congressman Jim Costa
Congressman Devin Nunes
Senator Dean Florez
Senator Roy Ashburn
Assembly Member Danny Gilmore
Assembly Member Jean Fuller

Poso Creek Integrated Regional Water Management Plan Management Group

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for more information please contact: Mr. Paul Oshel, Semitropic Water Storage District Engineer, (661) 758-5113



POSO CREEK IRWM PLAN IMPLEMENTATION

PUBLICATION DATE: FEB 2009

THE PLAN

1. **Formation of Management Group;** the Poso Creek IRWM RMG was formed in March 2005 and continues to meet first Tuesday of the month.
2. **Adopted Plan in July 2007;** The RMG adopted the IRWM Plan, which functions as a living document. Since adoption, several stakeholders have been involved in updating the Plan, including: Self-Help Enterprises, Community Water Center, Sequoia River Lands Trust, Tulare Lake Basins Wildlife Partners, and CWI, CSU Fresno.
3. **Implementation and Planning Strategies;** Presently the RMG is implementing Water Management Strategies identified during the Plan development (A U.S. Bureau of Reclamation-funded Water 2025 System Optimization Review will refine the operations study and provide a detailed evaluation of the projects in the Plan).

STATUS OF WATER MANAGEMENT MEASURES AND PLAN PROJECTS

EXPANDING IN-LIEU SERVICE AREAS

No. 1 – Connect Friant-Kern Canal Turnout to Cawelo’s North System and **No. 2 – Ninth Avenue Pipeline;** being evaluated by the individual water districts.

No. 3a – Stored Water Recovery Unit; in design and under construction in phases.

No. 3b – Expand P-1030 In-Lieu Service Area; construction completed.

No. 3c – New P-565 In-Lieu Service Area; construction completed with interconnection to NKWSD operational.

DIRECT RECHARGE

No. 4 – GW Banking North of DEID with Pixely ID; will be evaluated within a separate Reclamation-funded System Optimization Review received by Pixely ID.

No. 5 – GW Banking Conveyance Improvements to North Kern WSD Recharge and Recovery Facilities; re-evaluated by the Poso Creek IRWM RMG and ranked as a high priority project.

No. 6 – Pond Poso Spreading Grounds; partially constructed in 2007.

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Both **No. 7 – Rag Gulch G-W Banking Project** and **No. 9 – White River G-W Banking in Rag Gulch** were considered, evaluated, and found not cost effective at this time.



Poso Creek Integrated Regional Water Management Plan Management Group

Semitropic Water Storage District • Delano-Earlimart Irrigation District • Shafter-Wasco Irrigation District • North Kern Water Storage District
North West Kern Resource Conservation District • Cawelo Water District • Kern-Tulare Water District

for more information please contact: Mr. Paul Oshel, Semitropic Water Storage District Engineer, (661) 758-5113



MODIFY CONVEYANCE SYSTEMS

– projects 10 through 19 will be evaluated for the amount of water they

are capable of managing and their cost/benefits refined as part of the Reclamation funded Water 2025 System Optimization Review.

No. 10 – Calloway Canal Improvements; CEQA is complete, district owns right-of-way, design is 85% complete.

No. 11 – Calloway Canal to Cross Valley Interconnection; CEQA is complete, district has agreements on right-of-way, design is 75% complete.

No. 12 – Calloway Canal to Lerdo Canal Interconnection; CEQA is complete, district owns right-of-way, design is in progress.

No. 13 – Multi-District Conveyance Facility; this large conveyance project being considered for funding by Reclamation would support of the SJR Settlement Water Management Goal.

No. 14 – North Interconnection between NKWSD/Shafter-Wasco; Districts applied for “Water for America” funds to construct project.

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No. 16 – Reverse Flow in the Friant-Kern Canal; considered in Federal Legislation along with capacity improvements to the Friant-Kern Canal to alleviate constraints.

No. 17 – Shafter-Wasco/Semitropic Interconnection on Kimberlina Road; considered in district planning for flexibility in operations, not identified for any specific funding sources.

No. 18 – Shafter-Wasco/Semitropic Interconnection on Madera Avenue; considered in district planning for flexibility in operations, not identified for any specific funding sources.

No. 19 – South Interconnection between NKWSD/Shafter-Wasco; Districts applied for “Water for America” funds to construct project.

NON-STRUCTURAL PROJECTS

No. 20 – Energy Usage; will be considered as part of the Proposition 84 Plan Update.

No. 21 – Joint Powers Authority; Poso Creek IRWM RMG joined the Tulare Basin JPA for the Tulare Basin and may consider other governance agreements, as needed, for Regional projects that overlap multiple districts or planning areas.

No. 22 – Institutional Agreements and Governance for IRWMP Implementation; Poso Creek RMG has signed with a larger SJV Planning Group through a JPA; the RMG is implementing “Non-Structural” water management measures.

No. 23 – GW Banking for Parties Outside of Poso Creek IRWMP Region; Semitropic has formed a JPA with Rosamond. NKWSD and Semitropic continue to implement and explore additional agreements for outside banking interests. Districts in Southern California are expressing interest in banking supplies south of the Delta. Reclamation has expressed an interest in GW Banking through Semitropic in support of CVP reliability and environmental decisions.

No. 24 – Optimizing Region’s Pumping Lifts; a long-term concept; presently, districts implement individual programs.

No. 25 – Enhance Groundwater Monitoring and/or Modeling; several RMG districts were successful under the recent DWR Local GW Assistance grant program. Semitropic and NKWSD have led the GW monitoring and modeling within the Plan Area. A regional effort may be useful to coordinate with the larger planning area, especially considering the Delta pumping restrictions and the SJR Settlement. This may be considered in the Kern IRWMP and Tulare Basin level of planning.

ENHANCE ENVIRONMENTAL RESOURCES

No. 26 – Wildlife Improvement Projects in IRWMP Region; Semitropic will submit a WUE Concept Proposal for conveyance improvements to Goose Lake and is coordinating the project development

with the Tulare Lake Basin Wildlife Partners and the Semitropic Wildlife Improvement District.

No. 27 - Environmental Water Management in Support of Wildlife Settlements Outside of IRWMP Region; Poso Creek RMG CVP Contractors will be part of Reclamation’s effort to implement the SJR Water Management Goal to restore SJR Habitat flows. The location of the Poso Creek RMG is well positioned to help off-set reduced pumping south of the Delta by use of GW Banking to help regulate surface supplies. Opportunities exist to mitigate the impact to the Region’s water supply for DACs who share the local GW supply, environmental, urban, and agriculture water needs.

ENHANCE FLOOD CONTROL

No. 28 - The Poso Creek Flood Control and Water Conservation Reservoir Project; this project was added to the Poso Creek IRWMP in May of 2008 and has potential to fit into the Prop 84 and 1E funding opportunities. This project is coordinated with R. L. Schafer and Associates.

ASSIST ECONOMICALLY DISADVANTAGED COMMUNITIES

No. 29 - Enhance Water Supply, address Drinking Water Treatment Needs, and upgrade Waste Water Treatment Facilities; progress was made following Plan adoption to include projects for DACs within the Poso Creek IRWMP Area. David Warner of Self-help Enterprises provided the RMG with an organized assessment of DAC needs for the Poso Creek Planning Area and for all of Kern County. The Poso Creek RMG has helped integrate the water related projects of the communities, however, it is expected that the Disadvantaged Communities will continue to be assisted by Self Help Enterprises and other planning groups within the Region. Since July 2008, Self-Help has successfully helped the communities of Buttonwillow and Shafter secure funding for a waster water treatment facilities. Communities are looking to find funding to make their projects construction ready or whole.



POSO CREEK IRWM PLAN IMPLEMENTATION

PUBLICATION DATE: FEB 2009

THE PLAN

1. **Formation of Management Group;** the Poso Creek IRWM RMG was formed in March 2005 and continues to meet first Tuesday of the month.
2. **Adopted Plan in July 2007;** The RMG adopted the IRWM Plan, which functions as a living document. Since adoption, several stakeholders have been involved in updating the Plan, including: Self-Help Enterprises, Community Water Center, Sequoia River Lands Trust, Tulare Lake Basins Wildlife Partners, and CWI, CSU Fresno.
3. **Implementation and Planning Strategies;** Presently the RMG is implementing Water Management Strategies identified during the Plan development (A U.S. Bureau of Reclamation-funded Water 2025 System Optimization Review will refine the operations study and provide a detailed evaluation of the projects in the Plan).

STATUS OF WATER MANAGEMENT MEASURES AND PLAN PROJECTS

EXPANDING IN-LIEU SERVICE AREAS

No. 1 – Connect Friant-Kern Canal Turnout to Cawelo’s North System and **No. 2 – Ninth Avenue Pipeline;** being evaluated by the individual water districts.

No. 3a – Stored Water Recovery Unit; in design and under construction in phases.

No. 3b – Expand P-1030 In-Lieu Service Area; construction completed.

No. 3c – New P-565 In-Lieu Service Area; construction completed with interconnection to NKWSD operational.

DIRECT RECHARGE

No. 4 – GW Banking North of DEID with Pixely ID; will be evaluated within a separate Reclamation-funded System Optimization Review received by Pixely ID.

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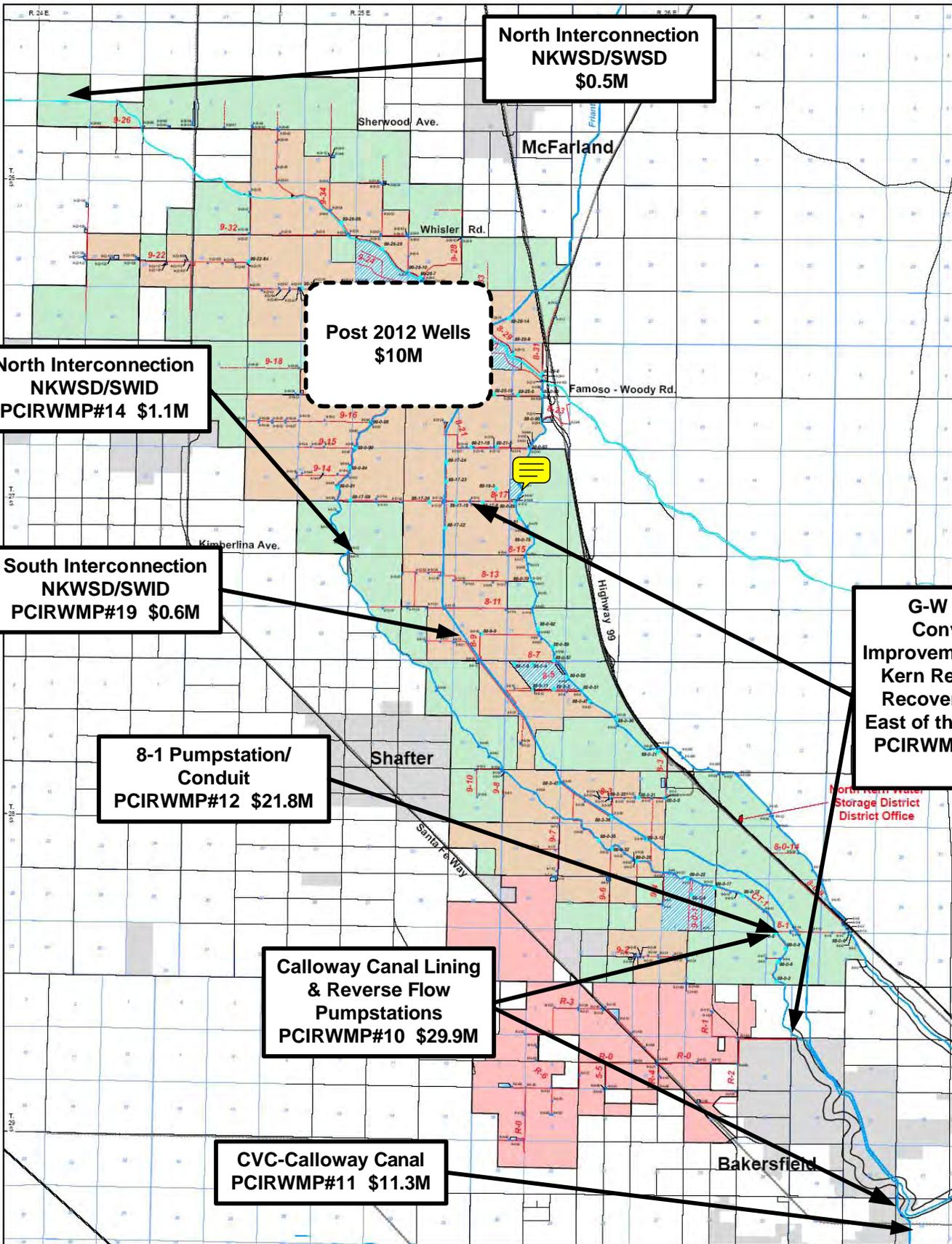
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**North Interconnection
NKWSD/SWSD
\$0.5M**

**North Interconnection
NKWSD/SWID
PCIRWMP#14 \$1.1M**

**Post 2012 Wells
\$10M**

**South Interconnection
NKWSD/SWID
PCIRWMP#19 \$0.6M**

**G-W Banking
Conveyance
Improvements to North
Kern Recharge and
Recovery Facilities
East of the Friant-Kern
PCIRWMP#5 \$17.5M**

**8-1 Pumpstation/
Conduit
PCIRWMP#12 \$21.8M**

**Calloway Canal Lining
& Reverse Flow
Pumpstations
PCIRWMP#10 \$29.9M**

**CVC-Calloway Canal
PCIRWMP#11 \$11.3M**

- North Kern Turnouts
- North Kern Wells
- Cement Canal
- Dirt Canal
- Pipeline
- Poso Creek
- NKWSD Reservoirs
- NKWSD District Office
- NKWSD Boundary
- Water Spreading Area
- Rosedale Ranch
- Class 1 Land
- Class 2 Land
- Non Project Area
- Towns



**Potential Capital Needs
North Kern Water Storage District**

POSO CREEK

Integrated Regional Water Management Plan



—ADOPTED JULY 2007—

Poso Creek IRWMP Regional Water Management Group, Study Area, and Region

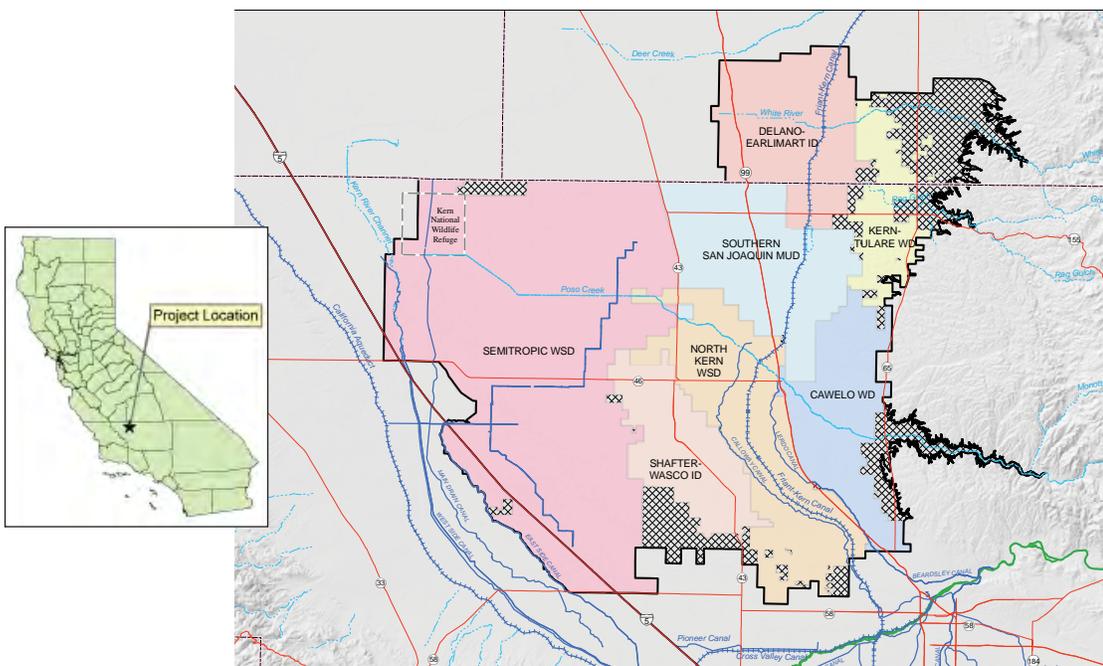
The Poso Creek Regional Water Management Group (RWMG) comprises six agricultural districts and one resource conservation district listed below.

- Semitropic Water Storage District – Lead Agency
- Cawelo Water District
- Delano-Earlimart Irrigation District
- Kern-Tulare Water District
- North Kern Water Storage District
- Shafter-Wasco Irrigation District
- North West Kern Resource Conservation District

The RWMG adopted the Poso Creek Integrated Regional Water Management Plan (Poso Creek IRWMP) in July 2007.

These districts overlie the groundwater basin in the Tulare Lake Basin Hydrologic area located in the northerly portion of Kern County and southerly portion of Tulare County. The Poso Creek IRWMP Region (Region) is a fertile agricultural area with a current annual gross value of agricultural commodities estimated at \$2 billion. The rich soils, climate, and irrigation water make it possible to grow predominately high-value, permanent crops. The largest value commodities – almonds, grapes, citrus, pistachios, and vegetables – are sold worldwide.

The Poso Creek IRWMP emphasizes resolving the Region's short-term and long-term water supply challenges through an integrated water resource planning approach. The Poso Creek IRWMP includes development of regional water management strategies to address the Region's needs and the framework for prioritizing and implementing them. The focus of the RWMG is to improve water supplies throughout the Study Area.



Notes:

1. The boundary of the RMG and Region encompasses all of the area within the districts; however, to the extent that the NWKRC boundary includes area outside of the districts, the NWKRC boundary lines are not included.
2. For the purpose of evaluating water supplies, demands, and operations, Southern San Joaquin Municipal Utility District (SSJMUD) was included with the RMG districts. This larger grouping is referred to throughout the IRWMP as the Study Area.

Poso Creek IRWMP Region's Assets

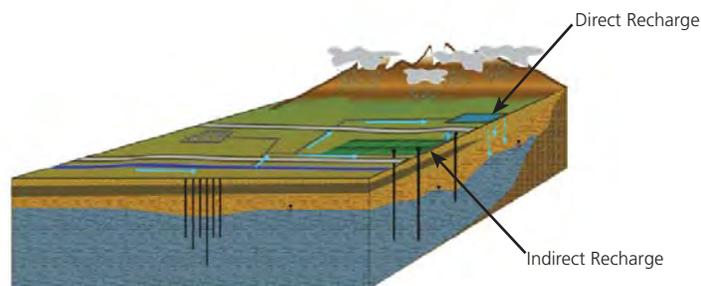
The RWMG and stakeholders (listed on the last page of this brochure) share a common interest in managing the surface water and groundwater resources of the Region. They have operated segments of the groundwater basin conjunctively with available surface supplies for decades. The managed resources include water supplies from:

- State Water Project via the California Aqueduct
- Central Valley Project via the California Aqueduct
- Central Valley Project via the Friant-Kern Canal
- Kern River
- Poso Creek
- Common groundwater basin

The Region is located at the crossroads of the California Aqueduct, Friant-Kern Canal, and the Kern River. Thus, the potential for increased conjunctive use of surface water and groundwater supplies is a valuable asset to the Region.

Since California typically experiences either wet or dry years, the groundwater basin acts as a large regulating reservoir. The existing conjunctive use operation can be expanded by adding interconnections and promoting water supply exchanges between districts that allow for more flexibility in the Region's water supply. The Region's assets of federal, state, and local water supplies, dewatered groundwater storage, and significant irrigation demand make it an ideal location to regulate surface supplies conjunctively to the benefit of the agricultural based economy and the *economically-disadvantaged communities* of the Region and the state of California.

Water Supply, Conveyance, and Groundwater Storage



The proximity of the RWMG to the California Aqueduct, Friant-Kern Canal, Kern River, Poso Creek and groundwater banking facilities, combined with large conveyance and absorptive capacity, provides an ideal setting for expanded conjunctive use operations.

The Region has large conjunctive use operations and significant groundwater storage capacity.

Challenges to the Region

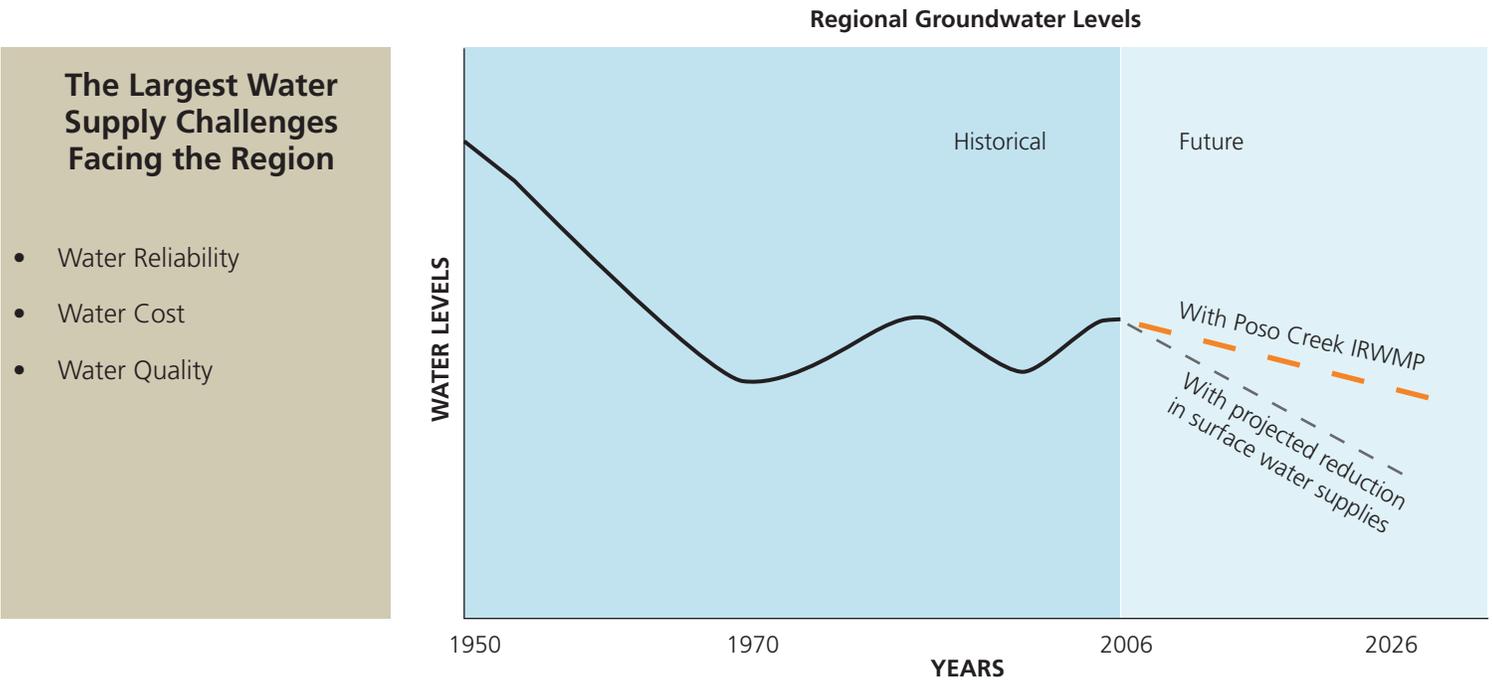
The accumulated effect of surface water supplies is reflected in the Region’s groundwater levels. As shown in the figure below, surface water supplies to the Region have generally stabilized groundwater levels since 1970. This relatively balanced condition would continue if deliveries of surface water supplies were to remain the same as recent historical amounts. However, the Region’s deliveries of surface water supplies are projected to decrease due to increased urbanization and environmental uses throughout the state.

Also shown illustratively in the figure are the effects of the projected reduction in deliveries of surface water supplies on regional groundwater levels. As pressure on surface supplies increases, it is apparent that the Region must make additional

use of its groundwater basin to regulate and absorb the available wet-year supplies. This increased conjunctive use operation will help maintain water reliability within the Region.

Since the Region produces crops for both local and world markets, to maintain its competitive role in the market place, the water supply must remain economical. Increased conjunctive use operations will help to maintain or enhance groundwater levels that support economically viable groundwater pumping lifts.

Groundwater quality in the Region is currently very good. Water banking and exchange activities will require water quality management and treatment to maintain that water quality.



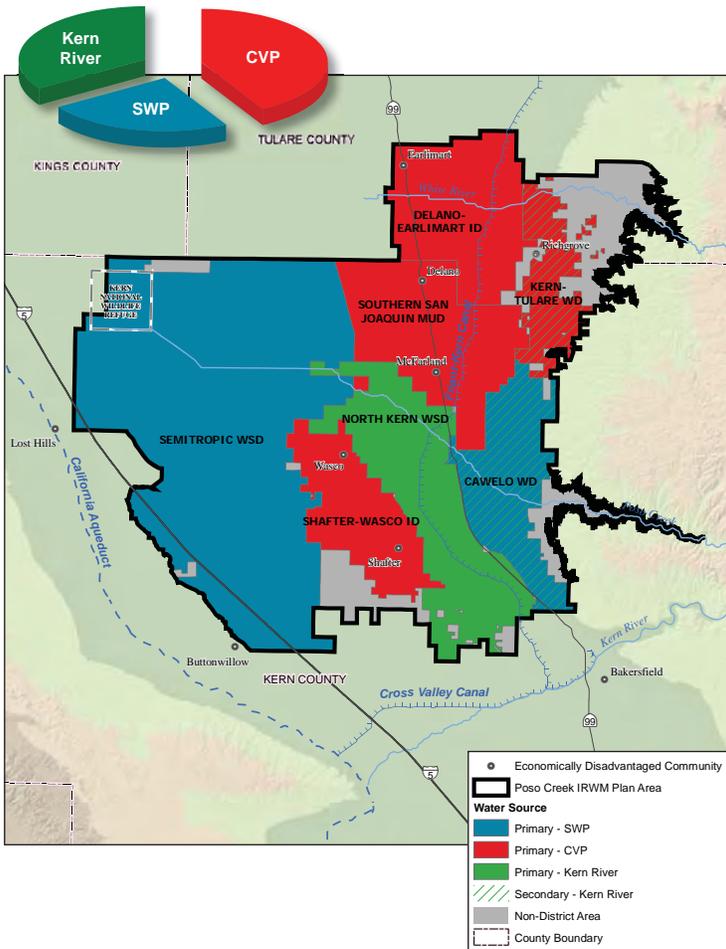
Regional Cooperation Will Provide A Solution

The sources of surface water supplies of the Region's individual districts' are shown on the map below. With the expected loss of historical surface water supply reliability, the Region must absorb wet-year water supplies in order to maintain a reliable and economical water supply. Wet-year water is available on short notice and not always at times when the water can be delivered for an irrigation demand. Therefore, it is important that the Region increase its ability to absorb surface water when available.

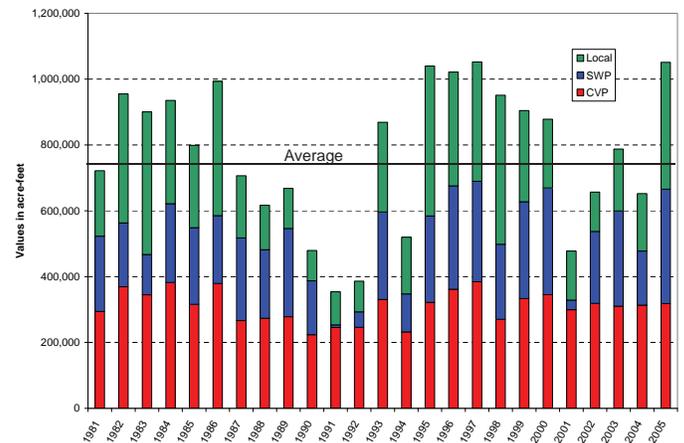
Because water is available to the Region from a number of sources which have differing hydrologic timing, integration of these various water supplies, combined with conjunctive

use of the groundwater basin, provides the Region with an opportunity to mitigate the projected loss to its water supplies.

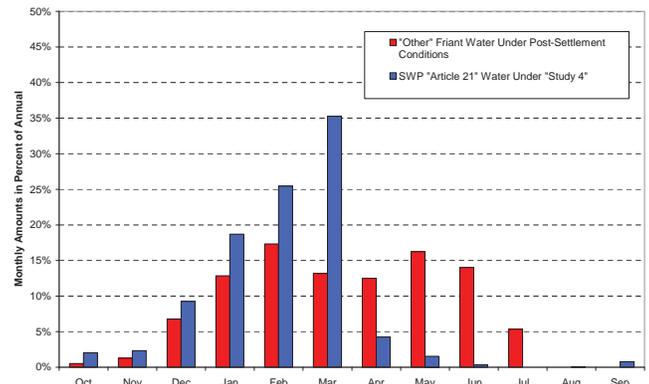
Regional cooperation will provide solutions for individual district needs by increasing operational flexibility. This can be accomplished by enhancing the existing conveyance systems within districts and establishing interconnections between districts. These conveyance enhancements will foster additional water delivery capability within the Region.



Historical Surface Water Supplies delivered to Poso Creek IRWMP Region during 1981-2005



Average Monthly Distribution of "Other" Friant Water Under Post-Settlement Conditions and SWP "Article 21" Water Under "Study 4"



Planning Objectives, Strategies and Water Management Measures

The RMG intends to implement non-structural and structural water resource management measures that support the Region's Planning Objectives and consider the State of California's state-wide priorities and the California Water Plan Update 2005 Resource Management Strategies.

The seven Planning Objectives which were identified for the Region are listed below. The more detailed operational objectives developed by the RMG during the plan formulation are included in Table ES-1 of the Plan.

- 1) Maintain and improve water supply reliability
- 2) Maintain groundwater levels at economically viable pumping lifts
- 3) Protect the quality of groundwater and enhance where practical
- 4) Maintain water supply costs at a level commensurate with the continued viability of the agricultural economy which has developed in the area
- 5) Enhance monitoring activities to meet groundwater levels and water quality goals
- 6) Maintain and/or enhance environmental resources within and outside of the study area
- 7) Enhance flood control in the study area

Planning objectives 1 through 5 were selected by the RWMG based on a consensus reached during a pre-application meeting held on April 20, 2005. Subsequently, during the kick-off meeting for the Poso Creek IRWMP held on January 5, 2006, the RWMG added planning objective 6, and, based on stakeholder input during monthly meetings held in 2006, planning objective 7 was added.

As Projects are implemented to meet the highest priorities for the Region, secondary benefits that each project may provide will be integrated into the *regional* solution. These benefits may include, flood control, ecosystem restoration, environmental and habitat protection and improvement, reduction in use of power and energy, water quality improvements, subsidence mitigation, and many others.

The RWMG, with input from the stakeholders, has considered all of the Water Management Strategies listed in Table 2–Water Management Strategies of the IRWM Grant Program Guidelines. Most of these water management strategies are already practiced in this Region to some extent, as discussed in Chapter 6 of this Plan. Due to the overwhelming need to address water supply issues within the Region, the RMG prioritized water management strategies into the following two groups;

Highest Priority Strategies Considered for Project Implementation

- Groundwater management
- Water supply reliability
- Conjunctive management of surface water and groundwater
- Water transfers and exchanges
- Water quality protection and improvement

Strategies Considered for Project Integration¹

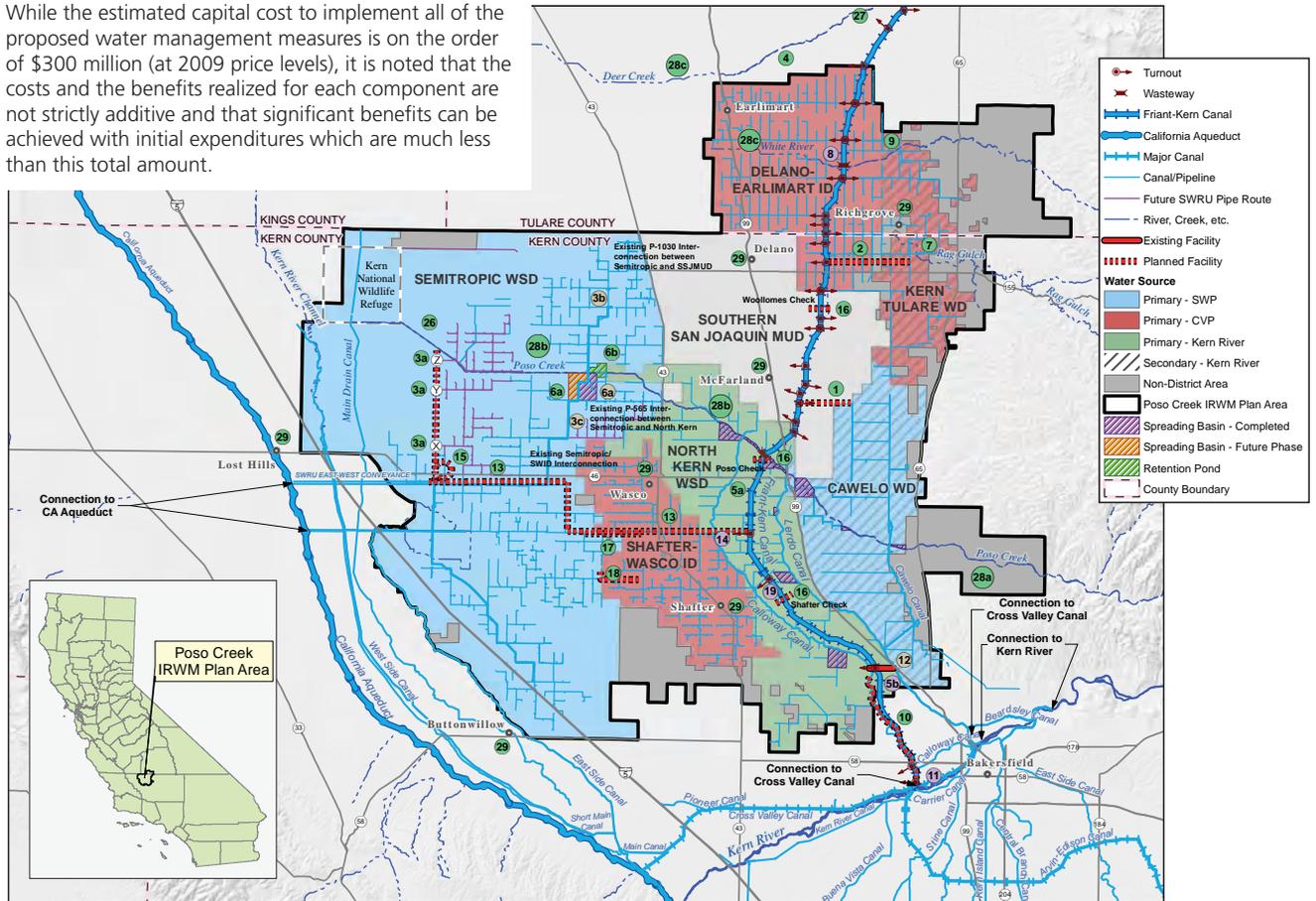
- Ecosystem restoration
- Environmental and habitat protection and improvement
- Flood management
- Imported water
- Land use planning
- NPS pollution control
- Recreation and public access
- Storm water capture and management
- Surface storage
- Water conservation
- Water recycling
- Water and wastewater treatment
- Watershed planning
- Wetlands enhancement and creation

The RWMG formulated and prioritized projects to implement, consisting of the non-structural and structural water management measures listed on the opposite page. Locations of the proposed structural measures are shown on the map. The projects that are proposed for near-term funding proposals are highlighted. Implementation of these projects will occur in phases as funding opportunities are secured to match local contributions.

¹ Due to the location of the Region, desalination is the only water management strategy not under consideration for the Region.

Water Supply Enhancement Project for the Poso Creek IRWM Plan Region

While the estimated capital cost to implement all of the proposed water management measures is on the order of \$300 million (at 2009 price levels), it is noted that the costs and the benefits realized for each component are not strictly additive and that significant benefits can be achieved with initial expenditures which are much less than this total amount.



STRUCTURAL PROJECTS (LOCATIONS SHOWN ON MAP)

Updated December 2010

● Construction Complete
 ● Planning/Prelim. Design
 ● Under Construction

* Since the Poso Plan Adoption in 2007, the districts have initiated or completed construction for the projects in bold.

Expand In-Lieu Service Areas

- 1 Connect Friant-Kern Canal Turnout to Cawelo's North System
- 2 Ninth Avenue Pipeline
- **3a Stored Water Recovery Unit**
In-Lieu Service Area Facilities
- **3b P-1030 In-Lieu Service Area (\$13.7M - local funding)**
- **3c P-565 In-Lieu Service Area (\$15.5M - local funding)**

Expand Direct Recharge

- 4 G-W Banking North of DEID with Pixley ID
- 5a G-W Banking Conveyance Improvements to North Kern WSD Recharge and Recovery Facilities; and G-W Recovery Wells
- **5b North Kern's Friant-Kern Canal 400cfs Turnout**
- **6a Phase I: Pond Poso Spreading and Recovery Facility**
- 6a Phase II: Pond Poso Spreading and Recovery Facilities
- 6b Pond-Poso Retention Ponds
- 7 Rag Gulch G-W Banking Project
- **8 Turnipseed G-W Banking Project Enhancement along White River in DEID**
- 9 White River G-W Banking in Rag-Gulch

Modify Conveyance Systems

- 10 Calloway Canal Improvements
- 11 Cross Valley Canal to Calloway Canal Intertie
- **12 Calloway Canal to Lerdo Canal Intertie**
- 13 CA Aqueduct to the Friant-Kern Canal Intertie
- **14 North Kern/Shafter-Wasco North Interconnection**
- 15 Pilot Arsenic Treatment Plant

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- 17 Shafter-Wasco/Semitropic Interconnection on Kimberlina Road
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- **19 North Kern/Shafter-Wasco South Interconnection**

Non-Structural Projects

- **20 Energy Usage**
- 21 Joint Powers Authority
- **22 Institutional Agreements and Governance for IRWMP Implementation**
- **23 G-W Banking for Parties Outside of Poso Creek IRWMP Region**
- 24 Optimizing Region's Pumping Lifts
- **25 Enhance Groundwater Monitoring and/or Modeling**

Enhance Environmental Resources

- 26 Wildlife Improvement Projects in IRWMP Region
- 27 Environmental Water Management in Support of Wildlife Settlements Outside of IRWMP Region

Enhance Flood Control

- 28a The Poso Creek Flood Control and Water Conservation Reservoir Project
- 28b Flood Management Programs along Poso Creek Flood Channel
- 28c Flood Management and Ecosystem Restoration Improvements along White River and Deer Creek

Assist Economically Disadvantaged Communities

- **29 Enhance Water Supply, Address Drinking Water Treatment Needs, and Upgrade Waste Water Treatment Facilities**



POSO CREEK IRWMP

Management Group

Your interest in the Region’s water resources and views on how they should be managed are important to the RWMG and stakeholders. We welcome your input, reviews, and comments on the Poso Creek IRWMP. The RWMG will continue to meet monthly as part of implementing the plan. RWMG public meetings are typically held at 12 pm on the first Tuesday of each month at the Semitropic Water Storage District offices. You may also participate in the meetings by conference call.

Please contact Mr. Paul Oshel, District Engineer for Semitropic Water Storage District, at (661) 758-5113, for information or to answer questions on behalf of the following seven entities:



Wilmar L. Boschman
General Manager
Semitropic Water Storage District



Steven C. Dalke
General Manager
Kern-Tulare Water District



David R. Ansolabehere
General Manager
Cawelo Water District



Dana S. Munn
Engineer-Manager
North Kern Water Storage District



Dale R. Brogan
General Manager
Delano-Earlimart Irrigation District



Brian Hockett
District Manager
North West Kern Resource Conservation District (NWKRCDD)



Jerry L. Ezell
General Manager
Shafter-Wasco Irrigation District

Regional Water Management Group

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Stakeholders and Plan Participants

- Buena Vista Water Storage District
- Lost Hills Water District
- Rosedale-Rio Bravo Water Storage District
- Semitropic Wildlife Improvement District
- Southern San Joaquin Municipal Utility District

- Kern County Water Agency
- Friant Water Users Authority
- Kern County Board of Supervisors
- City of Buttonwillow
- City of Delano
- City of McFarland
- City of Shafter
- City of Wasco
- Lost Hills Utility District
- Kern National Wildlife Refuge
- Paramount Farms

State and Federal Agencies

- California Department of Fish and Game
- California Department of Water Resources
- U.S. Bureau of Reclamation

Stakeholders and Participants added following the Plan adoption July, 2007

- California Water Institute, CSU Fresno
- Community Water Center
- R.L. Schafer and Associates
- Self-Help Enterprises
- Sequoia River Lands
- Tulare Basin Wildlife Partners

Legislative Contacts

- Congressman Kevin McCarthy
- Congressman Jim Costa
- Congressman Devin Nunes
- Senator Dean Florez
- Senator Roy Ashburn
- Assembly Member Danny Gilmore
- Assembly Member Jean Fuller