

POSO CREEK

Integrated Regional Water Management Plan

Presentation to Tulare Lake Region Forum

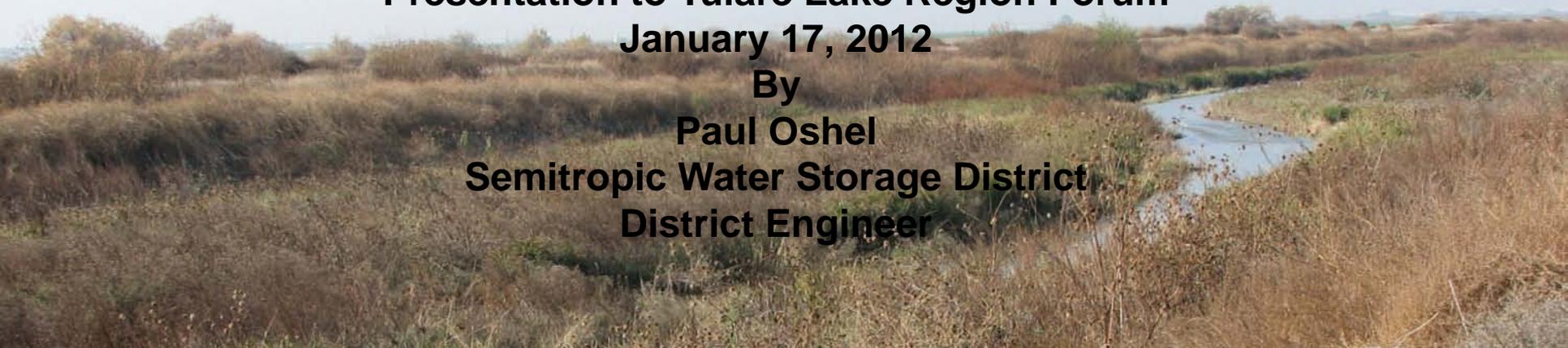
January 17, 2012

By

Paul Oshel

Semitropic Water Storage District

District Engineer



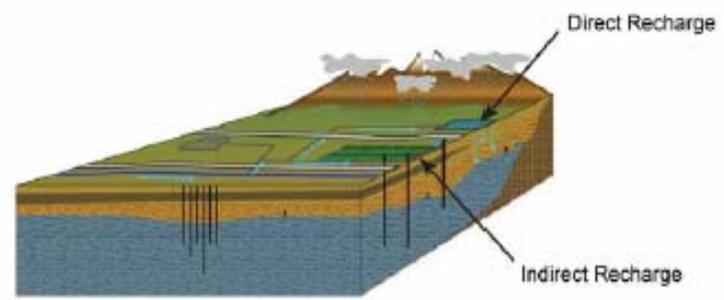
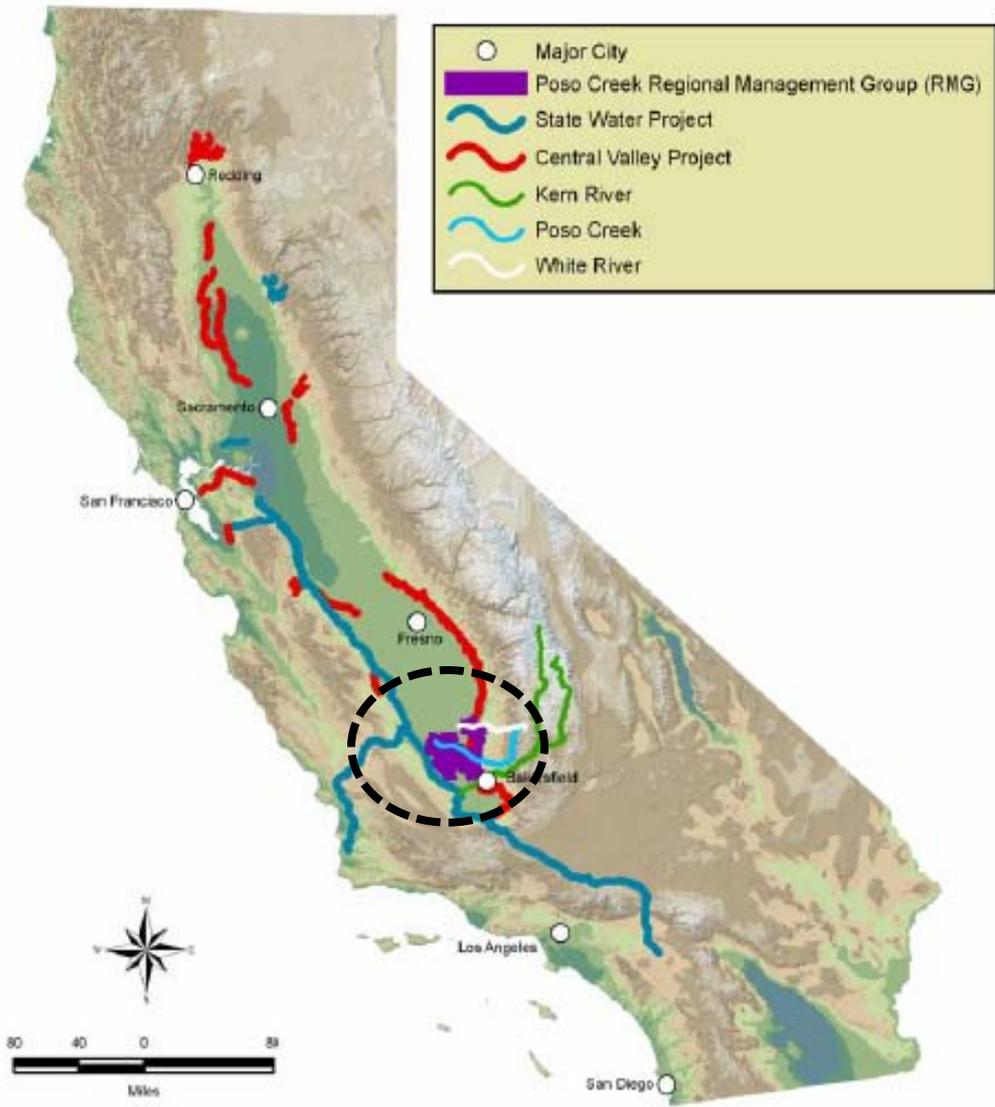
Who are the Regional Management Group
Proximity and Diversity of Resources
Chronology of Activity
Challenges and Management Strategy



Plan Adopted July 2007

Poso Creek Regional Management Group

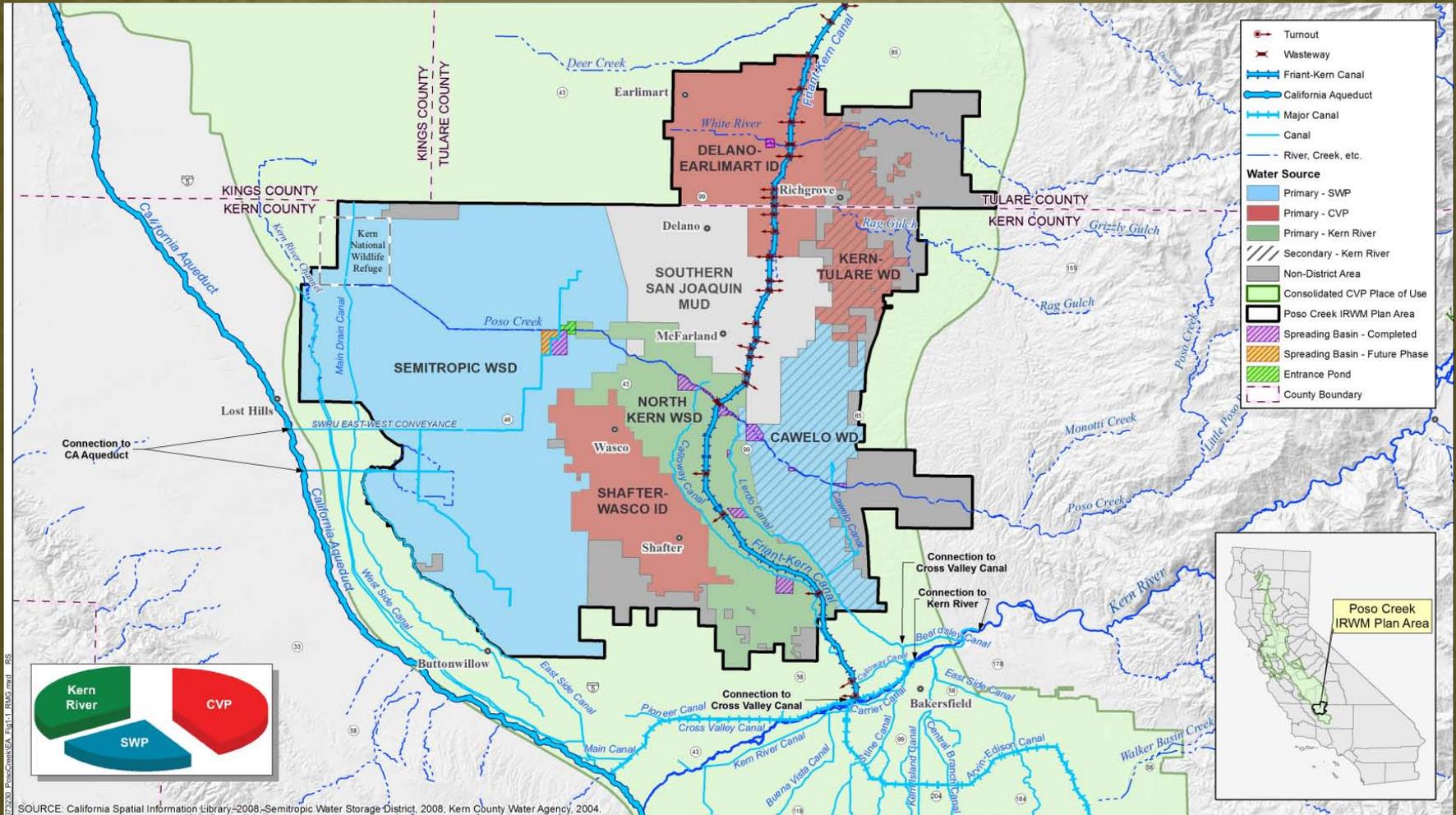
- Cawelo Water District (SWP)
- Delano-Earlimart Irrigation District (CVP)
- Kern-Tulare Water District (CVP)
- North Kern Water Storage District (Local)
- North West Kern Resource Conservation District
- Semitropic Water Storage District (SWP)
- Shafter-Wasco Irrigation District (CVP)
- 16 Disadvantaged Communities



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

The proximity of the Regional Management Group 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.

Poso Creek RMG



SOURCE: California Spatial Information Library-2008; Semitropic Water Storage District, 2008; Kern County Water Agency, 2004.



Poso Creek IRWM Plan
Groundwater Banking and Exchanges, EA-09-121
Southern San Joaquin Valley, California
Poso Creek IRWM Plan Area (Region)



POSO CREEK IRWM PLAN
REGIONAL MANAGEMENT GROUP
SEPTEMBER 2011
FIGURE 1-1

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Poso Creek IRWM Chronology

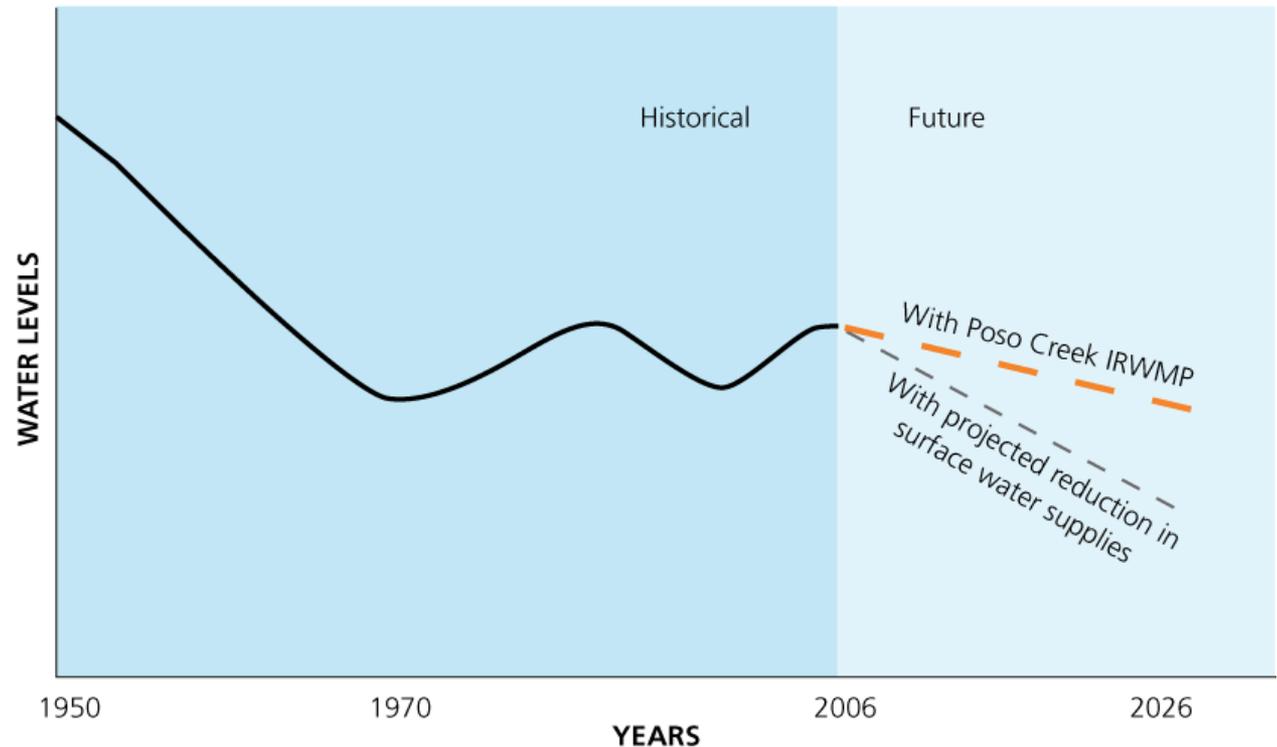
- 2005 – Formed Regional Water Management Group
- 2006 - Received Prop 50 Planning Grant (IRWMP)
- 2007 – Adopted IRWMP
- 2007 – Scored IRWMP in Prop 50 Funding Round
- 2008 – Shifted Regular Meeting Focus to Implementation
- 2008 to 2010 – Conducted Reclamation System Optimization Review
- 2009 – Region Acceptance Process with DWR, conditionally approved
- 2009, 2010, and 2011 – Received Reclamation Grants
- 2010 – Governance MOU completed
- 2010 – Applied to Rural Water Supply Program
- 2011 – RAP II with DWR, fully-accepted as Region
- 2011 – Implementation Grant from DWR

Challenges to the Region: Historical and Projected Groundwater Levels

The Largest Water Supply Challenges Facing the Region

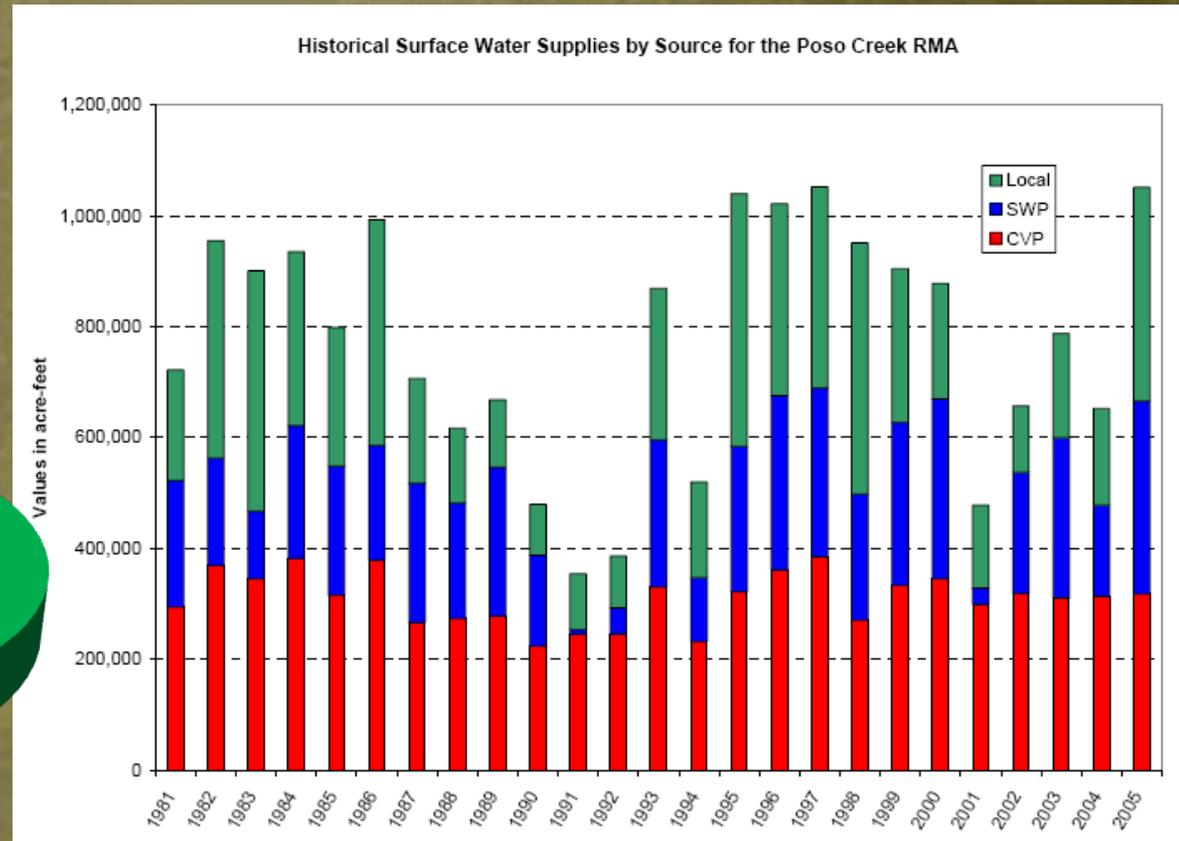
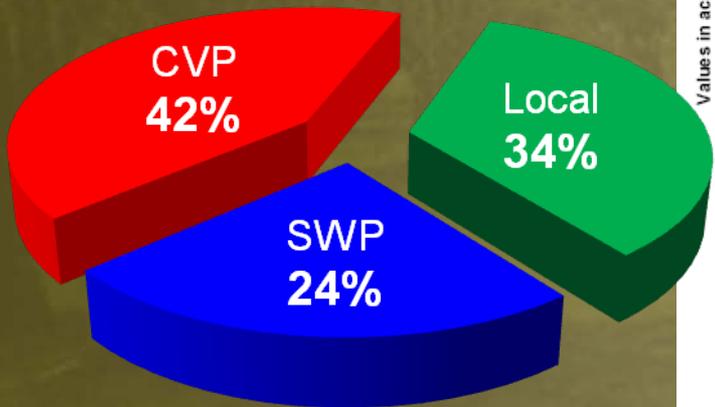
- Water Reliability
- Water Cost
- Water Quality

Regional Groundwater Levels



Historical Surface Water Supplies

1981 – 2005 Surface Water Supplies



Priority Water Management Strategy in Region

Non-structural – Have Institutional Agreements and Environmental Documents in place to move water

Structural Measures

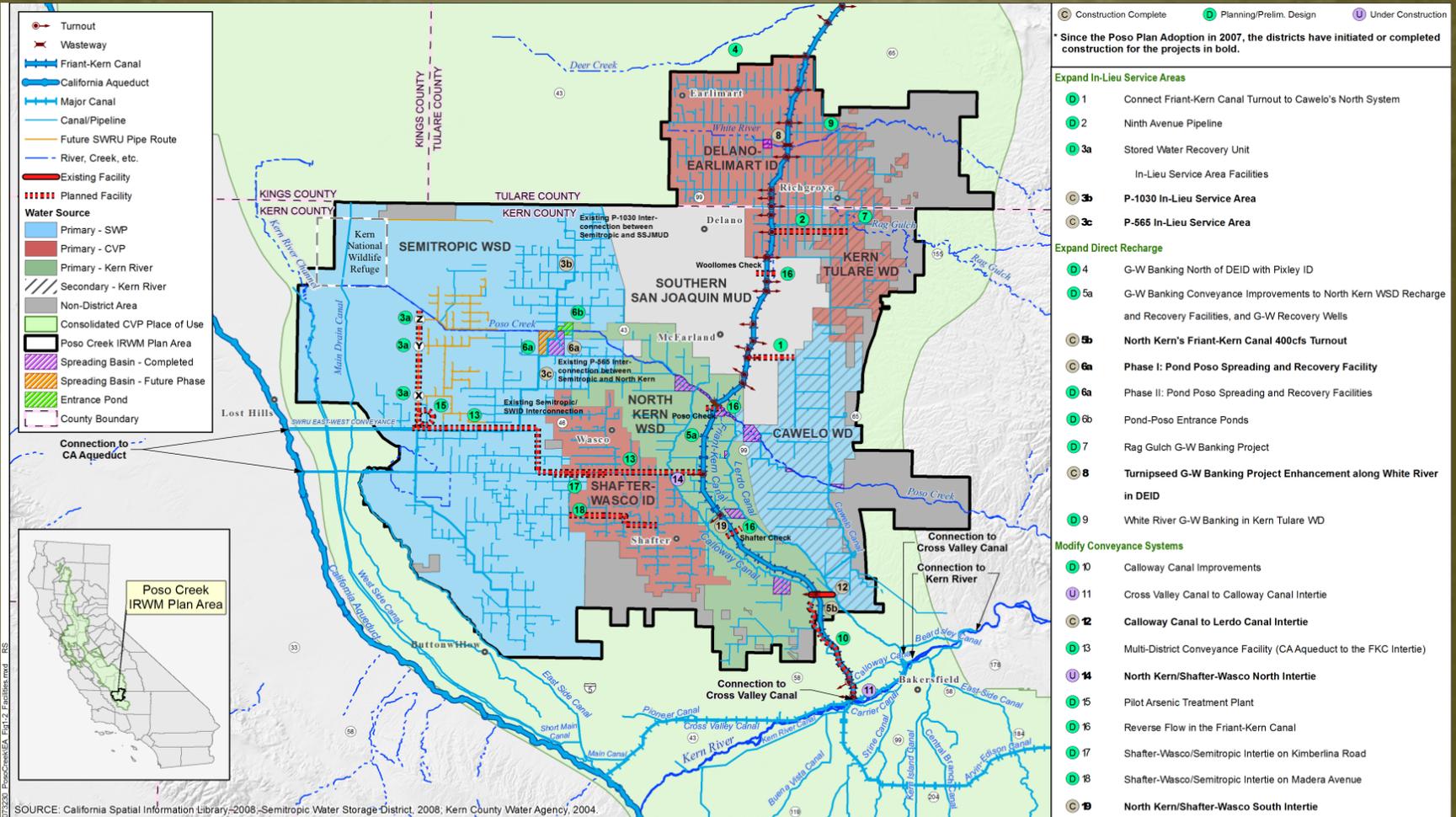
Expand In-lieu Service Areas

Expand Direct Recharge

Modify Regional Conveyance to enhance:

- Groundwater Management
- Water Supply Reliability
- Conjunctive Management of Surface Water and Groundwater
- Water Transfers and Exchanges

Poso Creek RMG



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

- 10** Calloway Canal Improvements
- 11** Cross Valley Canal to Calloway Canal Intertie
- 12** Calloway Canal to Lerdo Canal Intertie
- 13** Multi-District Conveyance Facility (CA Aqueduct to the FKC Intertie)
- 14** North Kern/Shafter-Wasco North Intertie
- 15** Pilot Arsenic Treatment Plant
- 16** Reverse Flow in the Friant-Kern Canal
- 17** Shafter-Wasco/Semitropic Intertie on Kimberlina Road
- 18** Shafter-Wasco/Semitropic Intertie on Madera Avenue
- 19** North Kern/Shafter-Wasco South Intertie

SOURCE: California Spatial Information Library; 2008-Semitropic Water Storage District, 2008; Kern County Water Agency, 2004.



Poso GW Banking and Exchange EA
Southern San Joaquin Valley, California

Poso Creek IRWMP



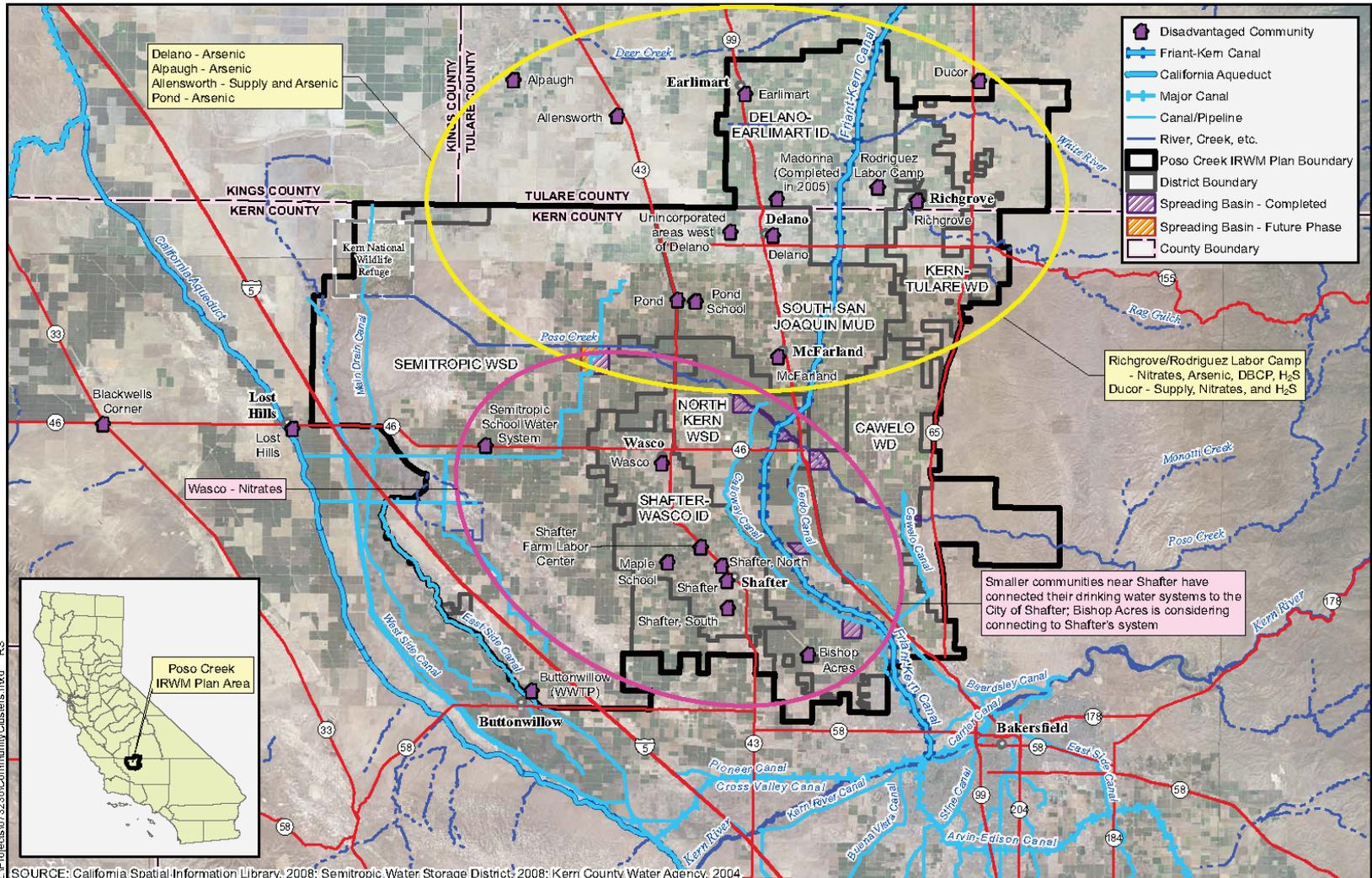
EXISTING AND PLANNED CONVEYANCE, RECHARGE, AND RETURN FACILITIES FOR BANKING AND EXCHANGE IN THE POSO CREEK IRWM PLAN

SEPTEMBER 2011

FIGURE 1-2

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Poso Creek IRWMP Rural Water Supply System Appraisal Level



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SOURCE: California Spatial Information Library, 2008; Semitropic Water Storage District, 2008; Kern County Water Agency, 2004



Appraisal Investigation for Rural Water Supply Systems
Southern San Joaquin Valley, California
Poso Creek IRWMP Plan Area (Region)



Small Communities Within and Near the Poso Creek Integrated Regional Water Management Plan Area
July 2010
Figure 7-1

Implemented Water Supply Enhancement Projects - \$20M Grant Funding since 2008

Semitropic In-lieu P-1030 and P-565 Systems (\$30M) (2007 funded without grants)

Reclamation Funding: 2008 to present

Poso System Optimization Review (\$300K)

North Kern and SWID North and South Interties (\$600K)

DEID's Turnipseed Banking Enhancement (\$1.55M)

Semitropic Canal Improvements, VFDs and Sonic Meters (\$300K)

North Kern's Turnout No. 2 (\$300K)

ARRA funds in 2009:

Semitropic Pond-Poso Spreading Grounds (\$2.2M)

North Kern Calloway to Lerdo Intertie (\$5M)

Water Conservation and Efficiency (\$711K), NRCS (\$1M)

DWR Prop 84 Imp Grant, (\$8.25M); CVC to Cal Canal Intertie (\$6.8M)