



*Reliable resources for the Valley*

# Sustainable Management through an Integrated Regional Water Management Plan (IRWMP)

David Orth, KRC D



# Cumulative Annual Changes in Aquifer-System Storage (1962-2002)

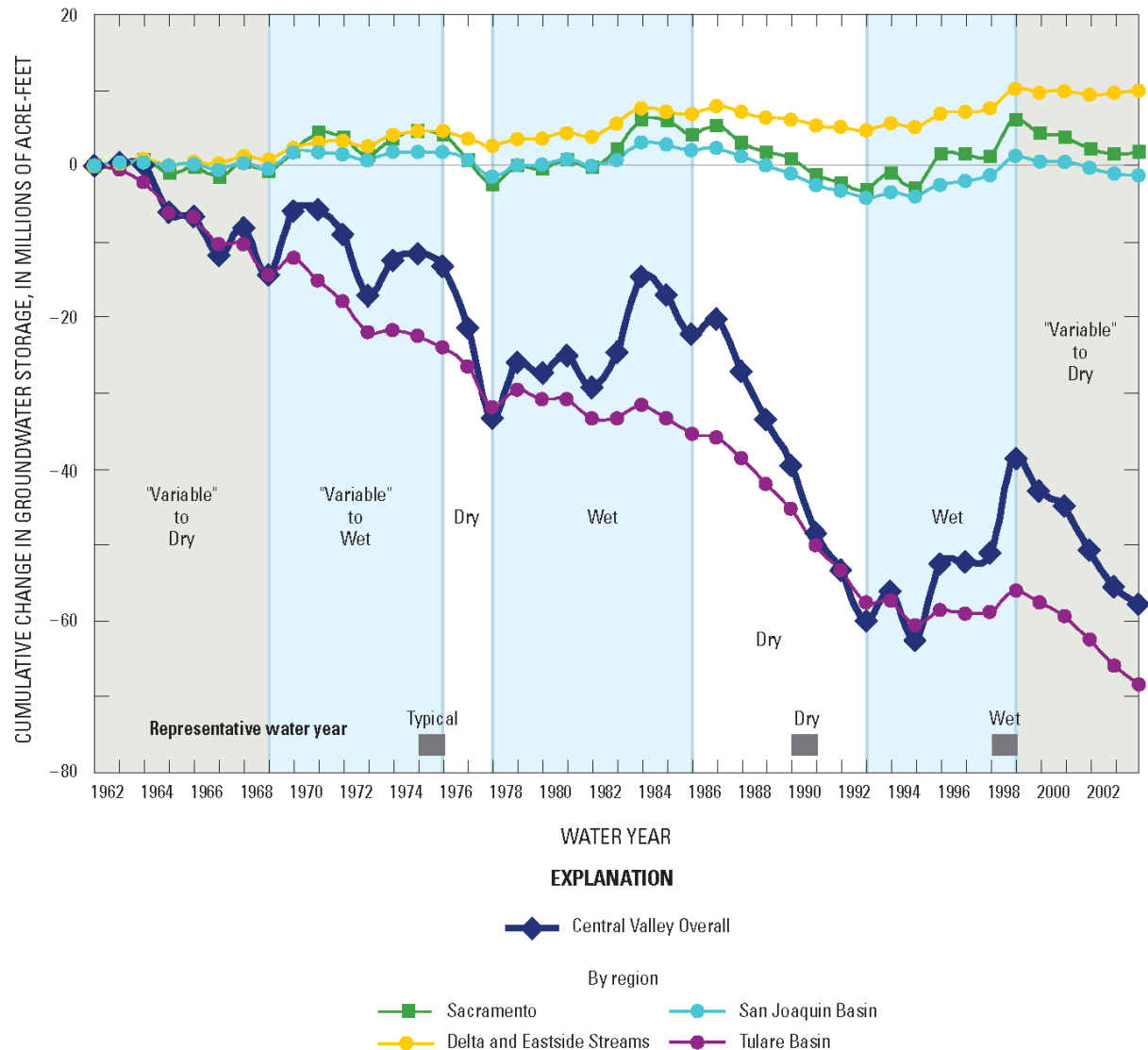
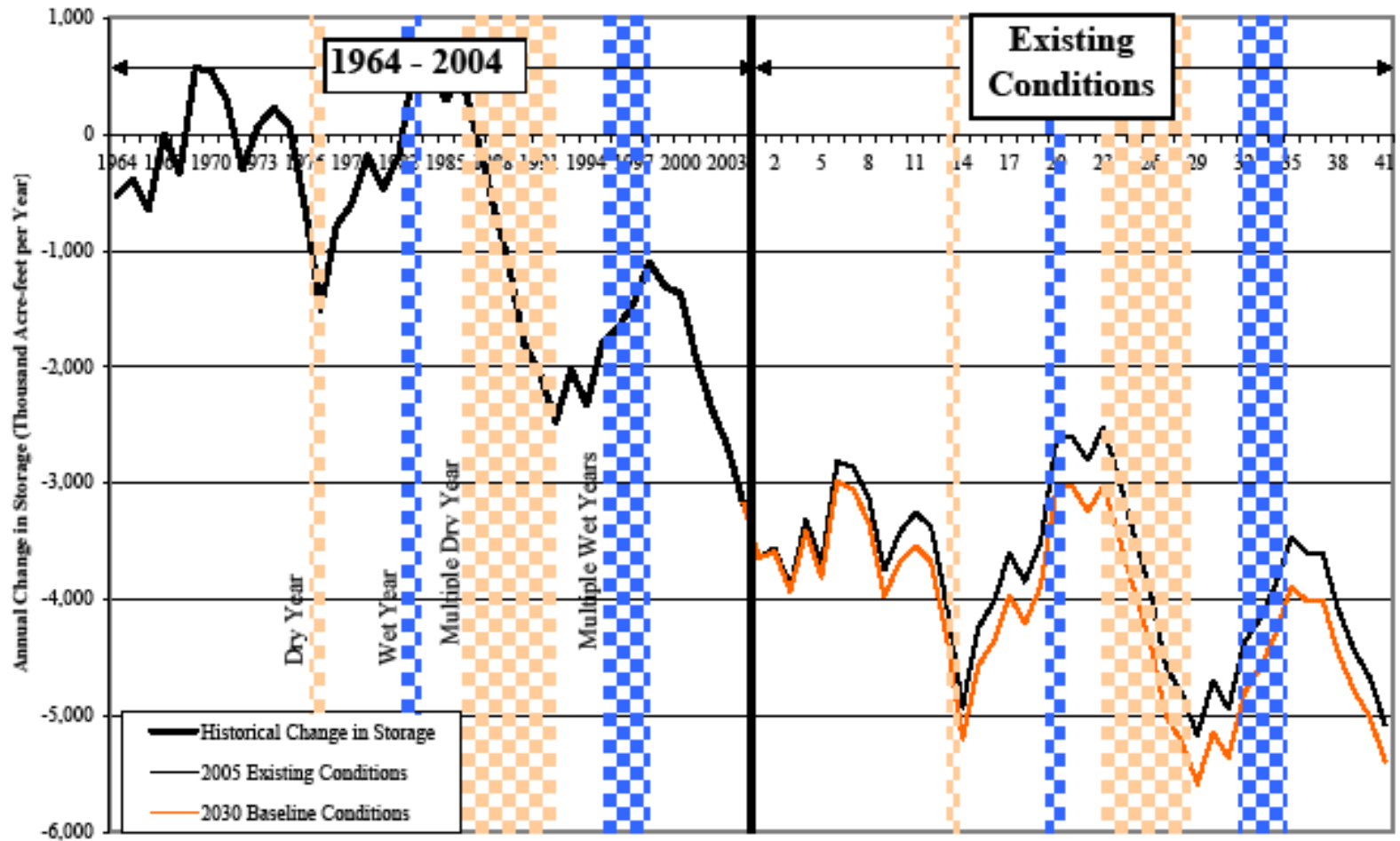
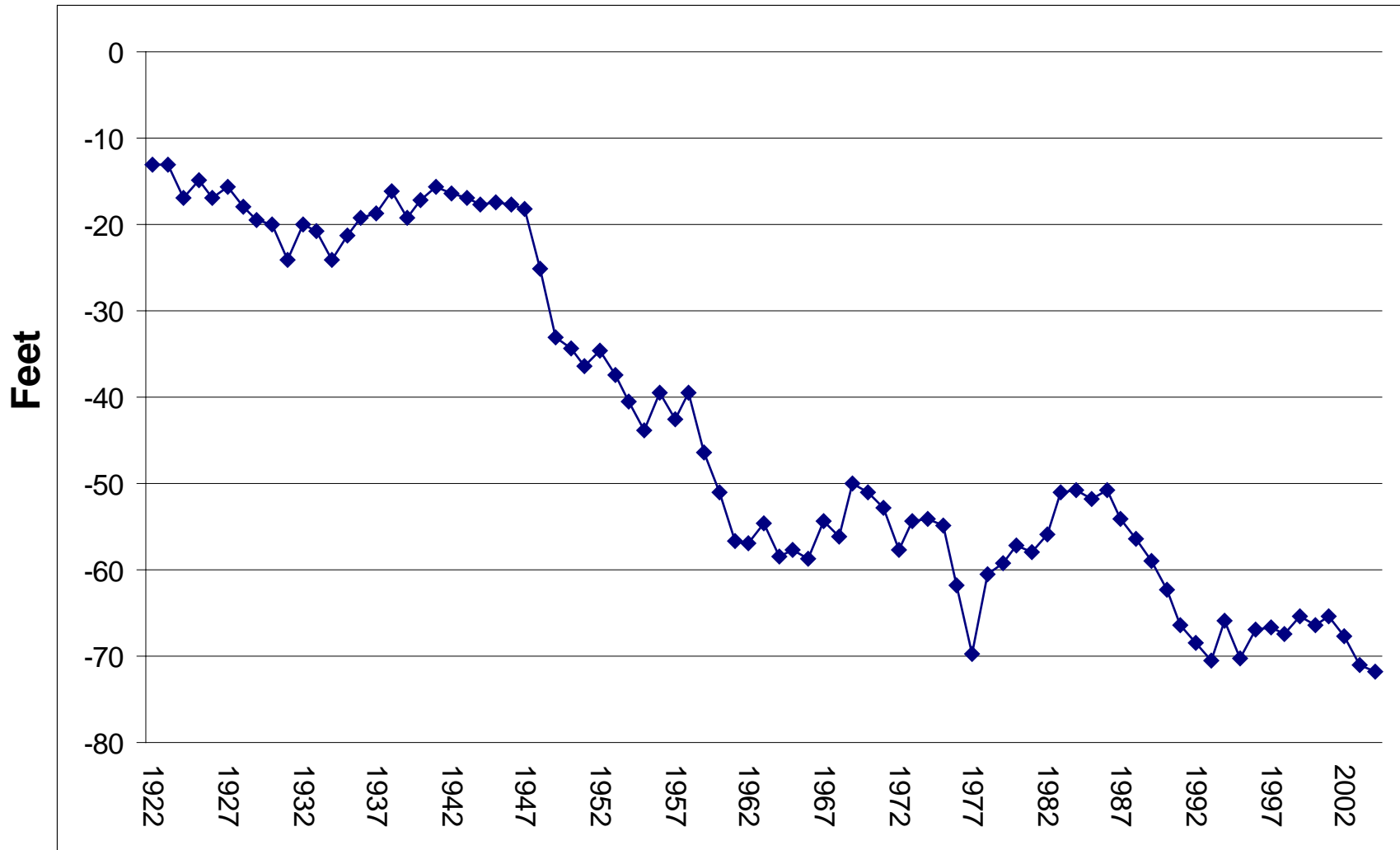


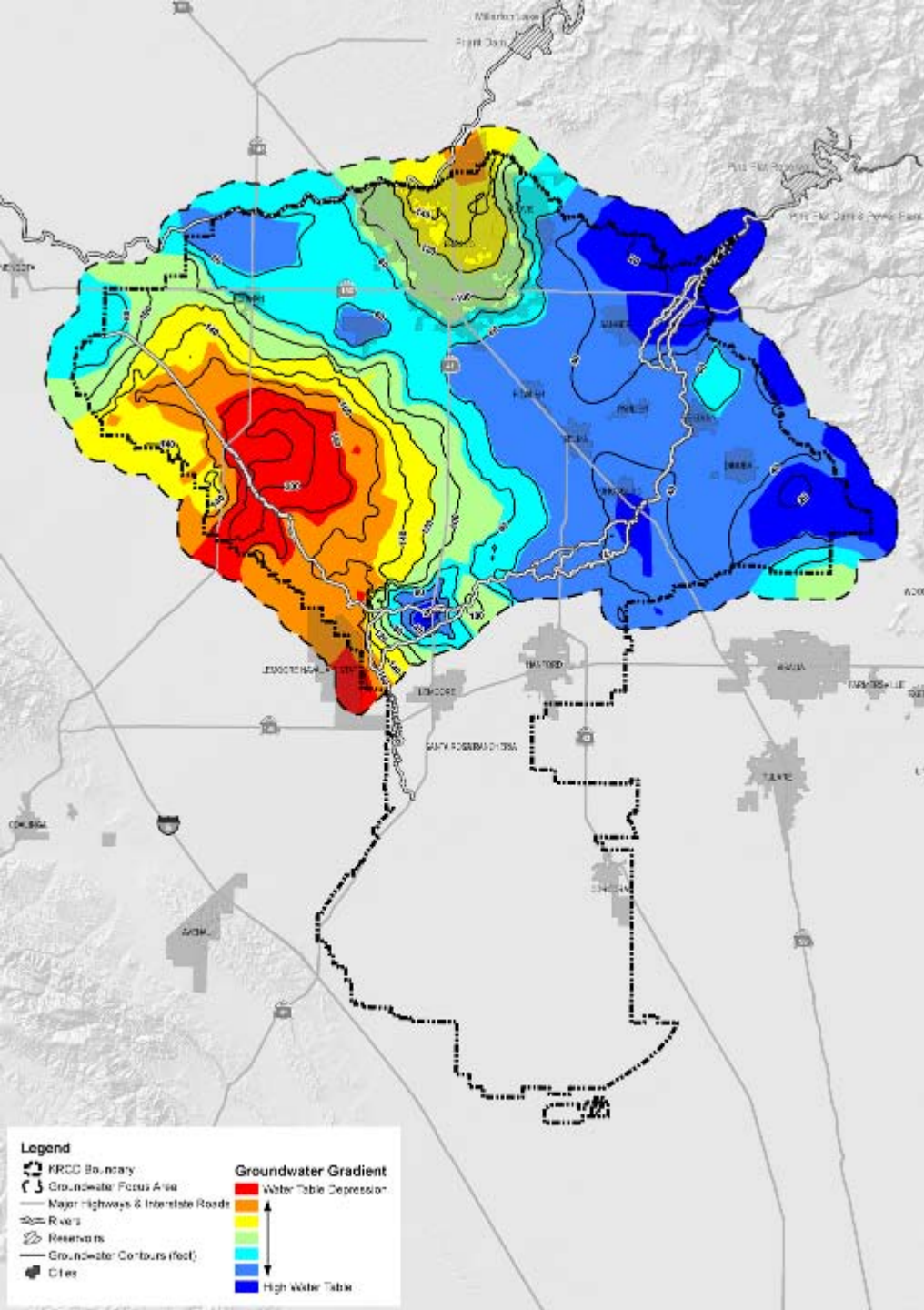
Figure 4-17. Cumulative Change in GW Storage in IRWMP Area

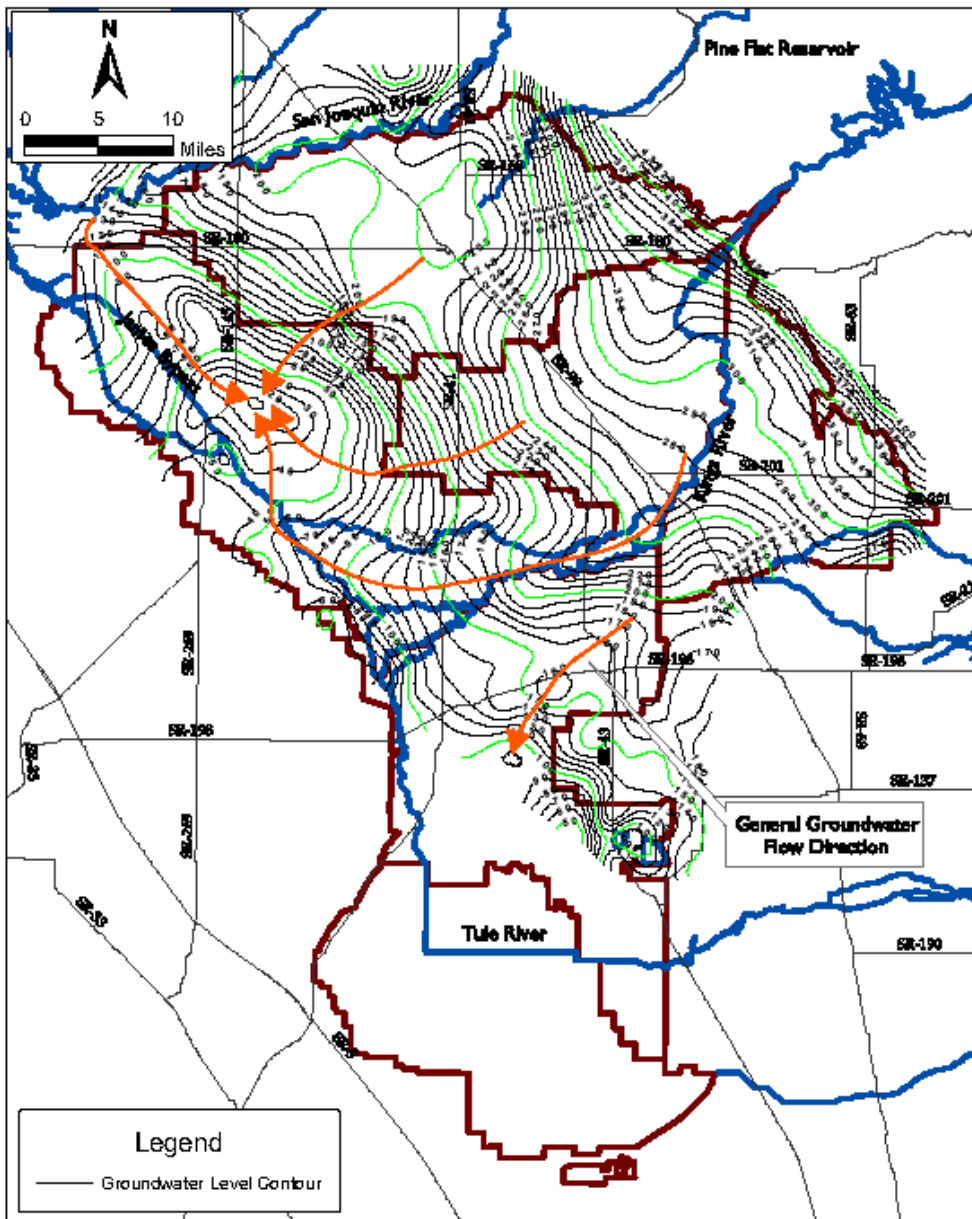


# Depth to Groundwater Fresno Irrigation District 1922-2004



# Depth to Groundwater Spring 2007





# Kings Basin Groundwater Flow Patterns



# Upper Kings Water Forum

- Formation of Basin Advisory Panel in 2001
- Creation of the “Forum” in 2004
- Supported by DWR
- Development of IRWMP
- Development of Interactive GW Model
- Adoption of IRWMP in 2007
- Formation of JPA in 2009



# Vision: Sustainable Supply

**The Vision of the Upper Kings Basin Water Forum is a sustainable supply of the Kings River Basin's finite surface and groundwater resources through regional planning that is balanced and beneficial for environmental stewardship, overall quality of life, a sustainable economy, and adequate resources for future generations.**



# Forum Membership is Diverse

**Kings River Conservation District**

**Alta Irrigation District**

**Consolidated Irrigation District**

**Fresno Irrigation District**

**Kings River Water Association**

**Raisin City Water District**

**Fresno Audubon Society**

**California Native Plant Society**

**Kings River Fisheries Management PAG**

**California Water Institute**

**Department of Water Resources**

**Center for Collaborative Policy**

**California Department of Fish & Game**

**Regional Water Quality Control Board**

**Kings County Water District**

**Kings River Conservancy**

**Self-Help Enterprises**

**Biola Community Services District**

**Laton Community Service District**

**Cutler Public Utilities District**

**Liberty Canal Company**

**City of Clovis**

**City of Kingsburg**

**City of Reedley**

**City of Sanger**

**City of Selma**

**City of Kerman**

**City of Parlier**

**City of Fowler**

**City of Fresno**

**City of Dinuba**

**County of Fresno**

**County of Kings**

**County of Tulare**

**El Rio Reyes Conservation  
Trust**

**Sierra Club**

**Tulare Basin Wildlife  
Partners**

**Cutler Public Utilities District**

**Orosi Public Utilities District**

**Riverdale Public Utilities  
District**

**City of Clovis**

**City of Kingsburg**

**City of Reedley**

**City of Sanger**

**Serra Resource Conservation  
Dist.**

**Bakman Water Company**

**Crescent Canal Company**

**Liberty Water District**

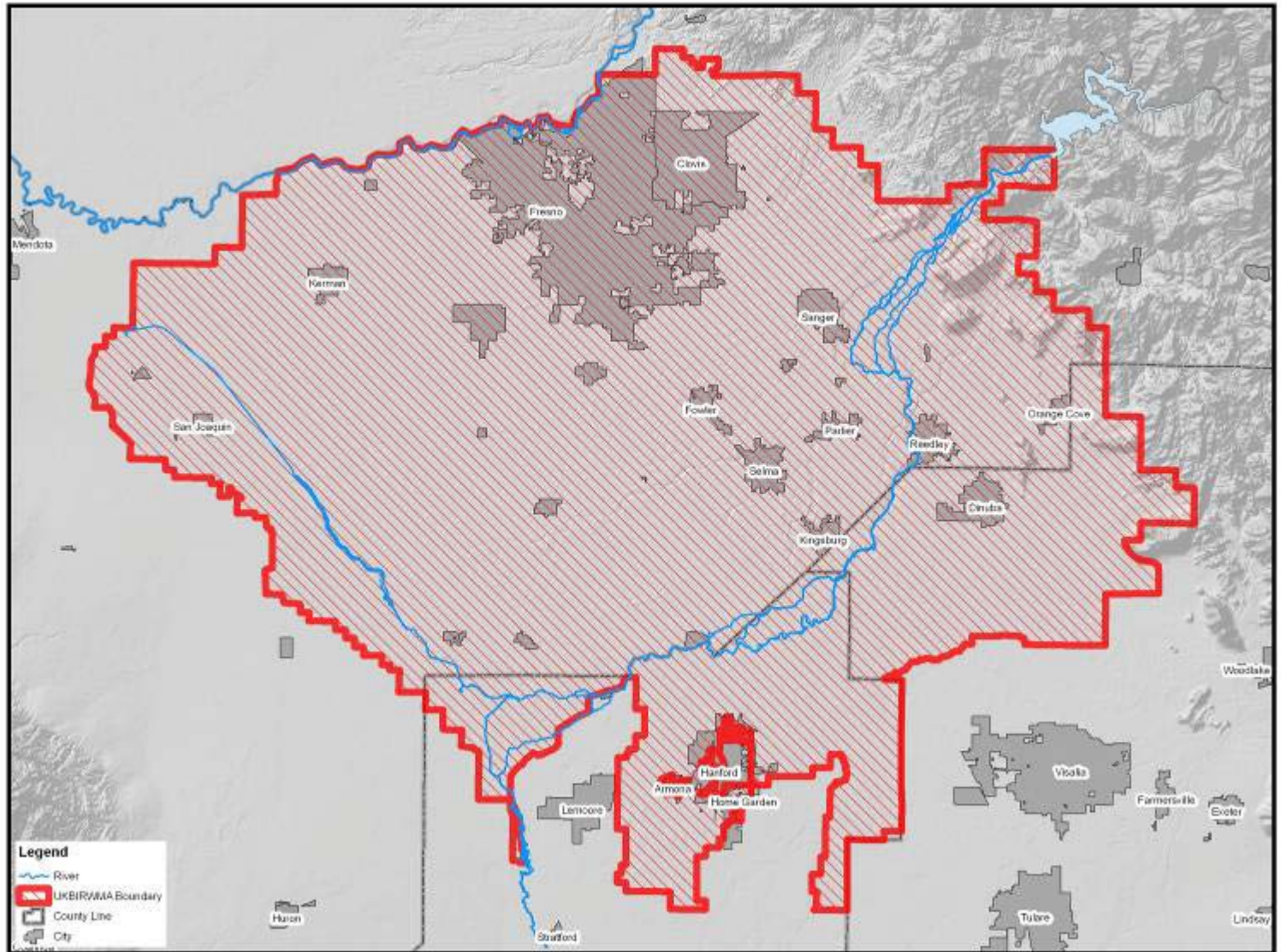
**James Irrigation District**

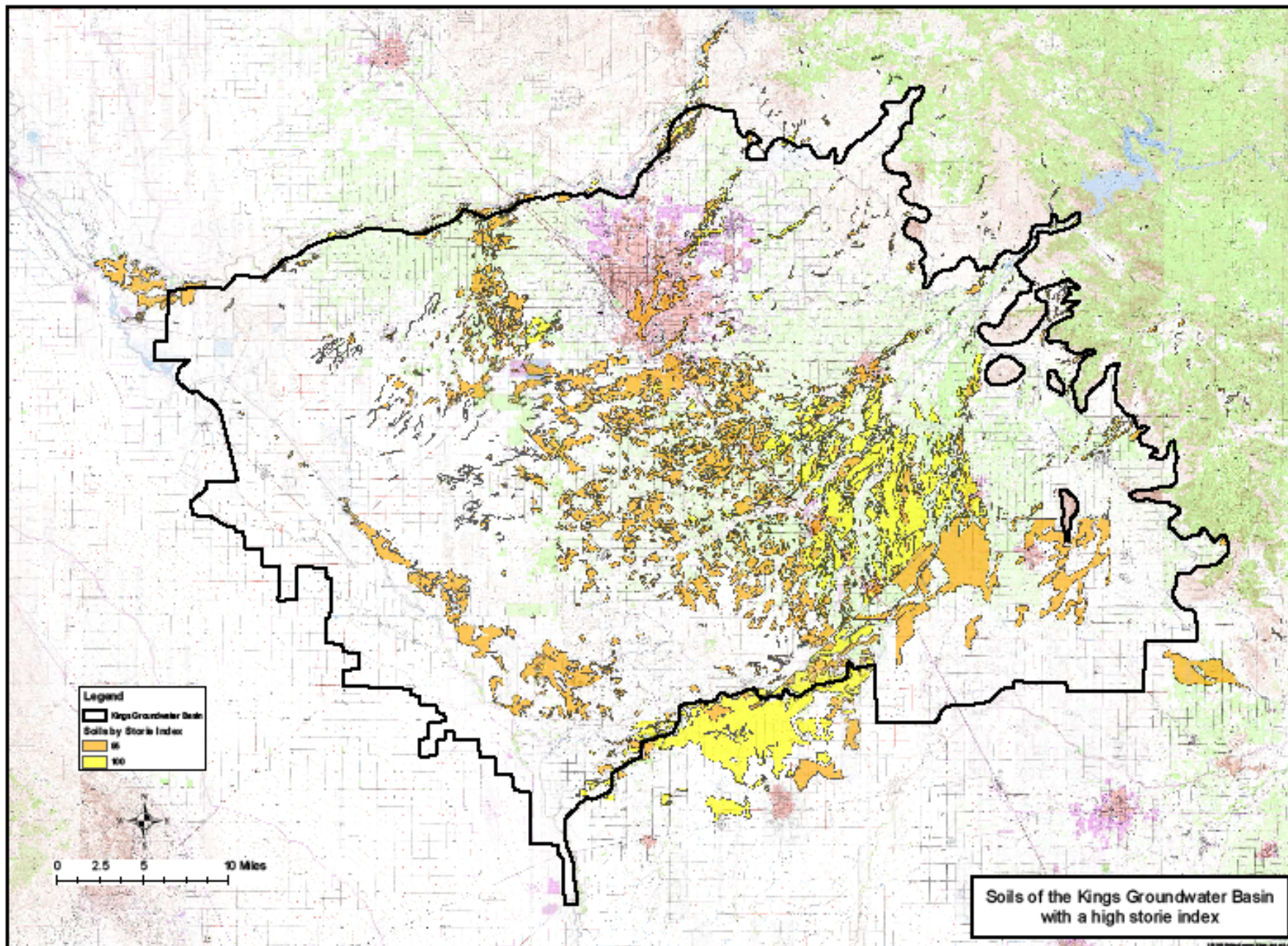
**Mid-Valley Water District**

**Orange Cove Utilities District**

**Reed Ditch Company**

# Map of Upper Kings IRWMP





# Upper Kings IRWMP

- Project Priorities
  - Increase water supply reliability
  - Improve and protect water quality
  - Provide additional flood protection
  - Protect and enhance aquatic ecosystems and wildlife habitat

# Upper Kings Basin Integrated Regional Water Management Plan (IRWMP)



Prepared for:

Upper Kings Basin Water Forum  
and Kings River Conservation District

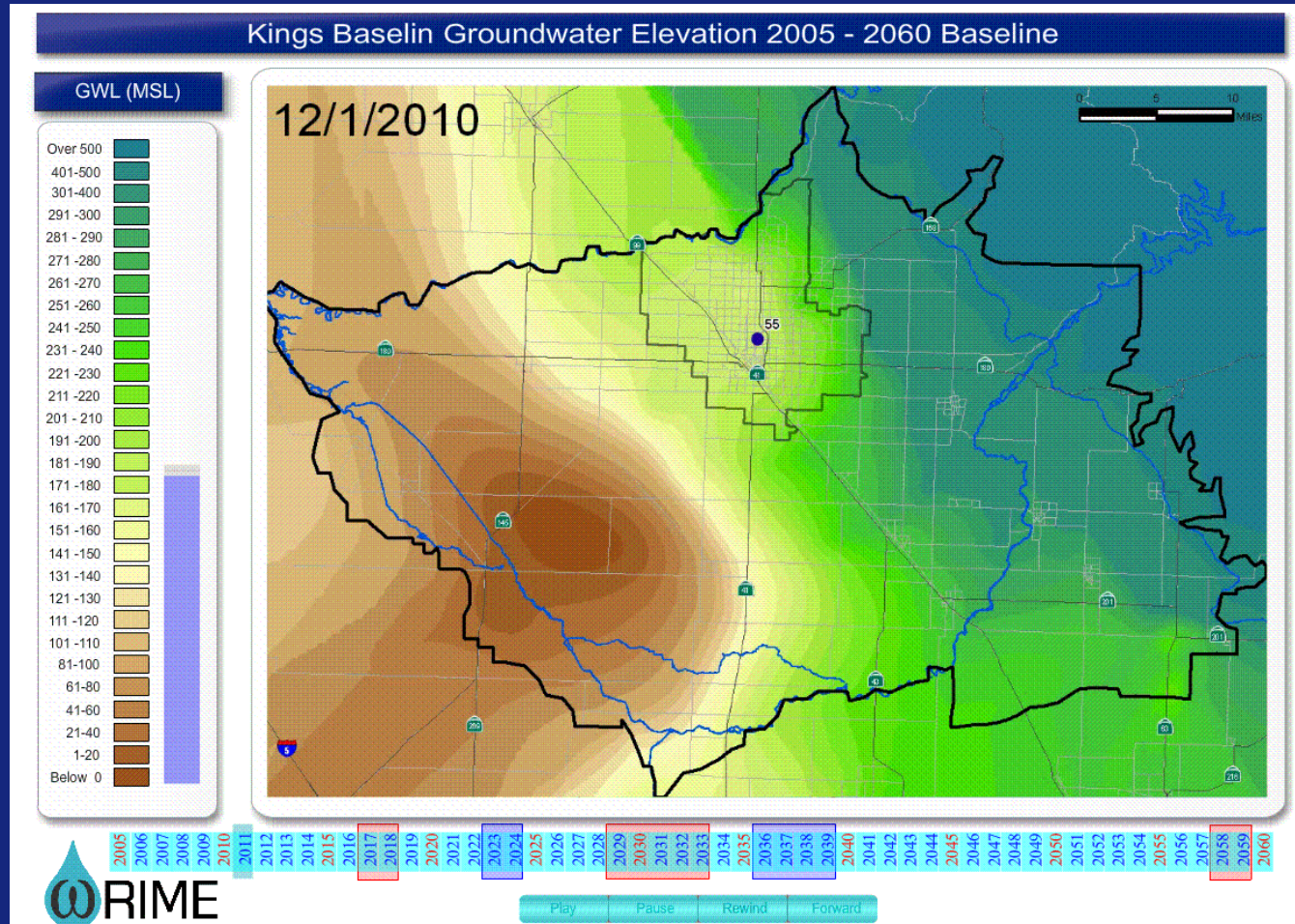
In Coordination with:

California Department of Water Resources



July 2007

# What Does Our Future Look Like?





# Groundwater Projects

- Prop 13 - \$7.5 million
  - Fresno ID Waldron Pond
  - Alta ID/Dinuba ponding basins
- Prop 50 - \$6 million
  - Fresno ID recharge facilities/City of Fresno water meters
  - Alta ID groundwater banking facility – includes benefits to Cutler/Orosi CSD

# Current Activities of the Planning Area

- Developed a formal governing body
  - Joint Powers Authority
  - Voting structure
  - Budget
- Identification and preparation of next projects to be submitted for funding



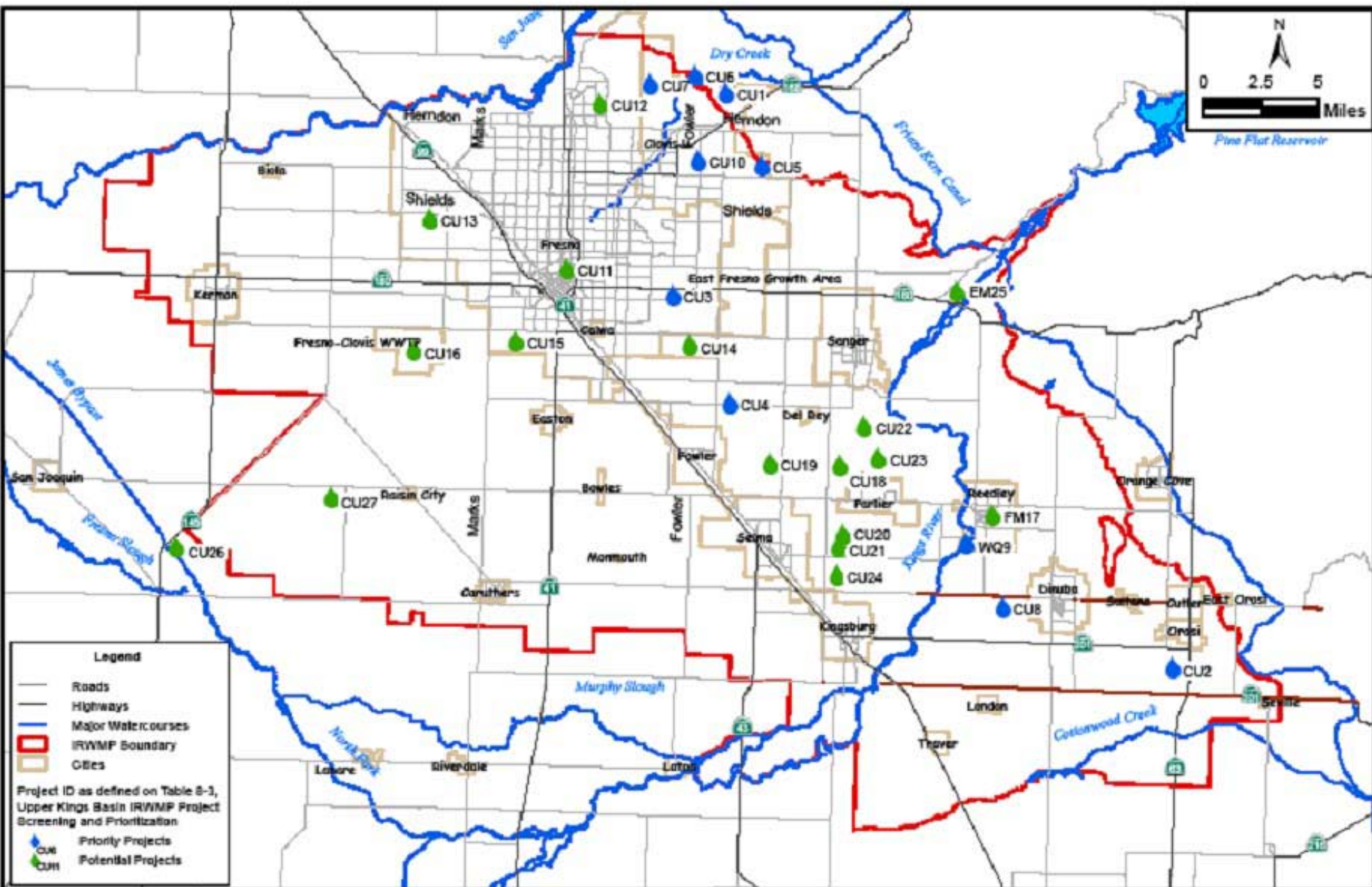


# JPA Membership

**Members** – voting members, only public entities

**Interested Parties** – non-voting (on the Advisory Committee) may be public and non-public entities (non-governmental organizations and local & state agencies) advisory capacity participate in committees and sub-committees seek their support before decisions are made

**Administrative Manager** – executive and fiscal agent, non-voting



## Upper Kings Basin IRWMP Proposed Project Locations

Upper Kings Basin IRWMP

June 2007

Figure 8-1





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# More Collaboration is Needed

- Supply side management unlikely to support future water demands
- Better integration with land use planning
- Ag/Urban/Environmental needs assessment and prioritization
- Increased emphasis on conservation, measurement, efficiency

# In Conclusion

- Sustainability can be reached IF:
  - Surface supply reliability is enhanced
  - Sizable investment/increase in recharge
  - Aggressive conservation
  - Aggressive recycling
  - Support from land use community