

RECLAMATION

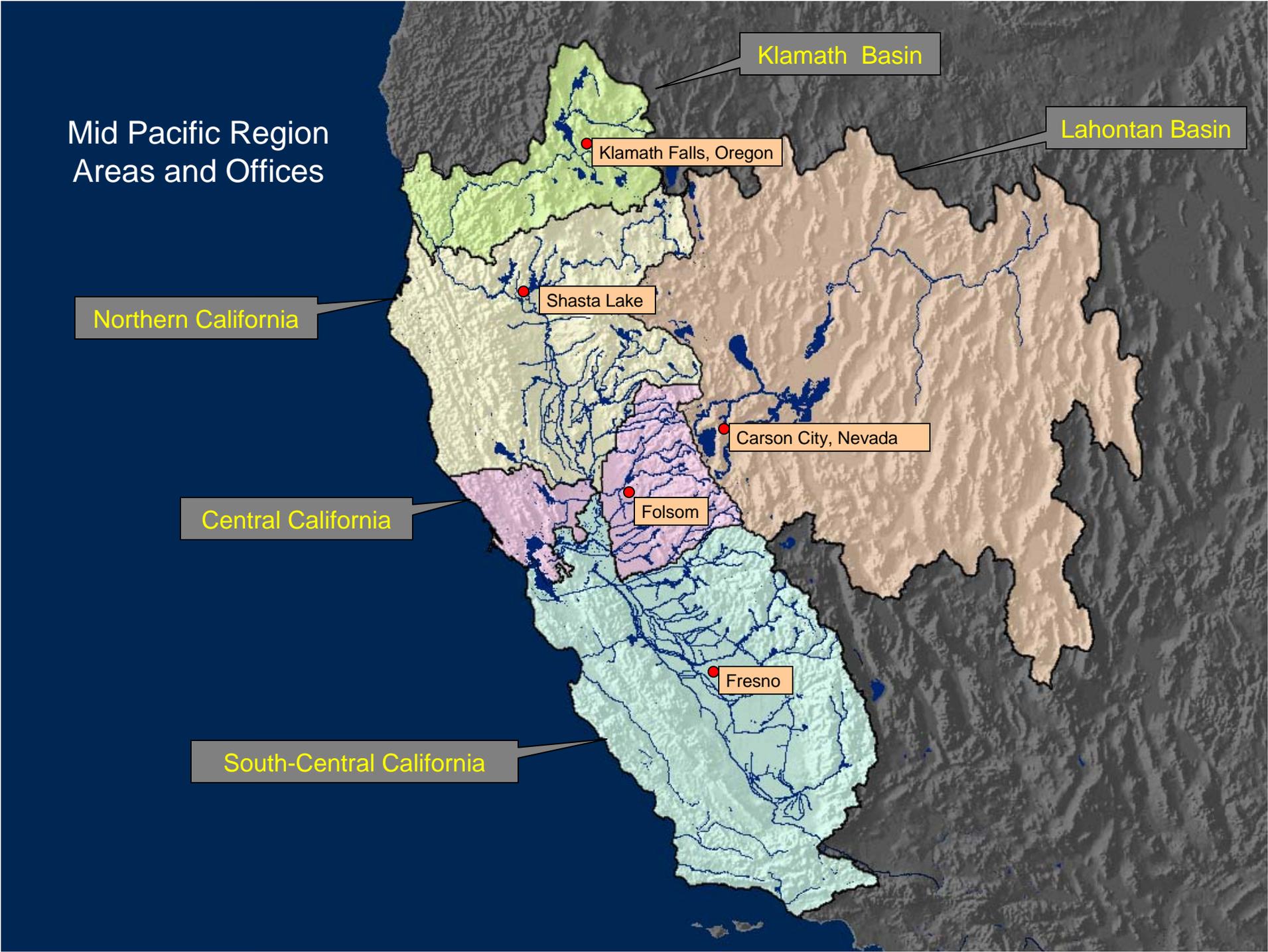
Managing Water in the West

Bureau of Reclamation Groundwater Banking



U.S. Department of the Interior
Bureau of Reclamation

Mid Pacific Region Areas and Offices

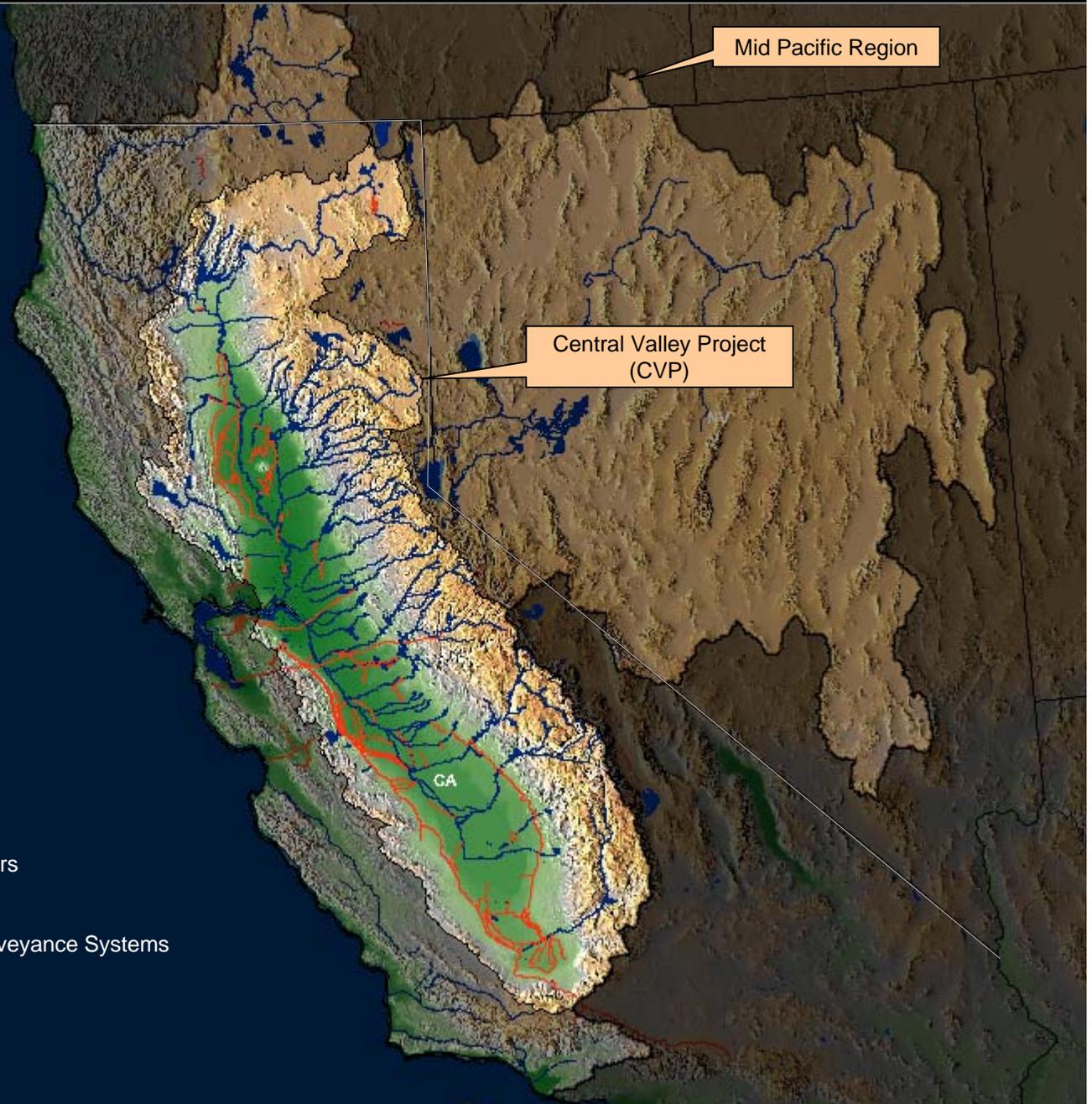


BACKGROUND

Mid Pacific
Region

Central
Valley
Project

-  Rivers
-  Conveyance Systems



CVP Water Banking

- Consistent with Water Conservation Best Management Practices – Conjunctive Use
- Included in Contract Renewals
 - Section 3(d) of CVP Water Service Contracts identifies the use of Project water outside the Contractors' service area. This section states that “ Groundwater recharge programs, **groundwater banking programs**, surface water storage programs and other similar programs utilizing Project Water or other water furnished pursuant to the Contract **conducted outside the Contractor's Service Area may be permitted upon written approval of the Contracting Officer**, which approval will be based upon environmental documentation, Project Water rights, and Project operational concerns. **The Contracting Officer will address such concerns in regulations policies, or guidelines.**”
- Applied to all CVP Contractors

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Banking Guidelines - Objective

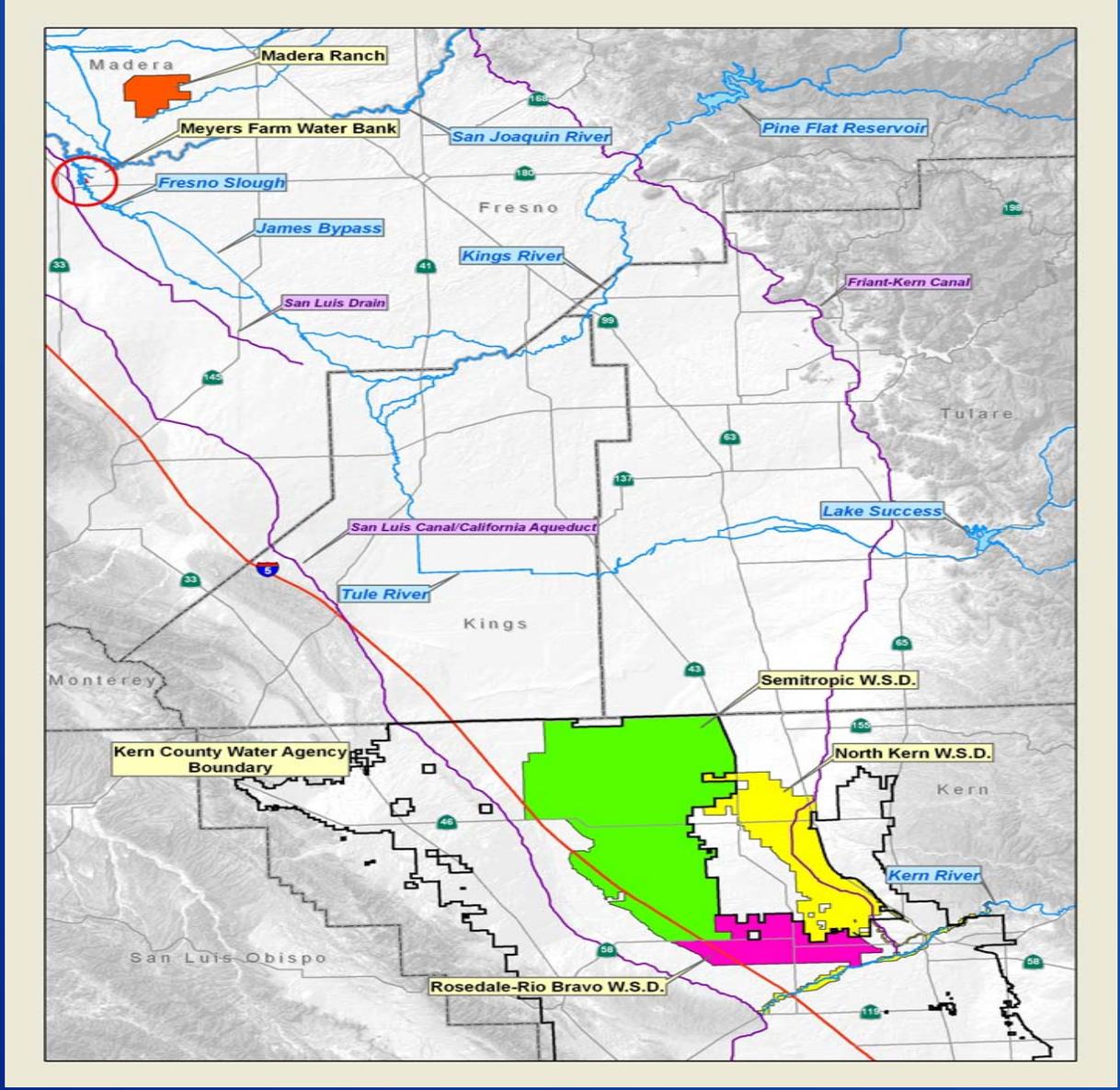
- Provide **criteria & conditions** under which CVP Contractors can participate in groundwater banking programs outside their contract service area
- Provide Contractors with **operational flexibility to facilitate management** of CVP water supply
- Provide **uniformity** with respect to information requirements, review process, and approvals
- **Protect the integrity** of the CVP service & operations

Reclamation

Contractors

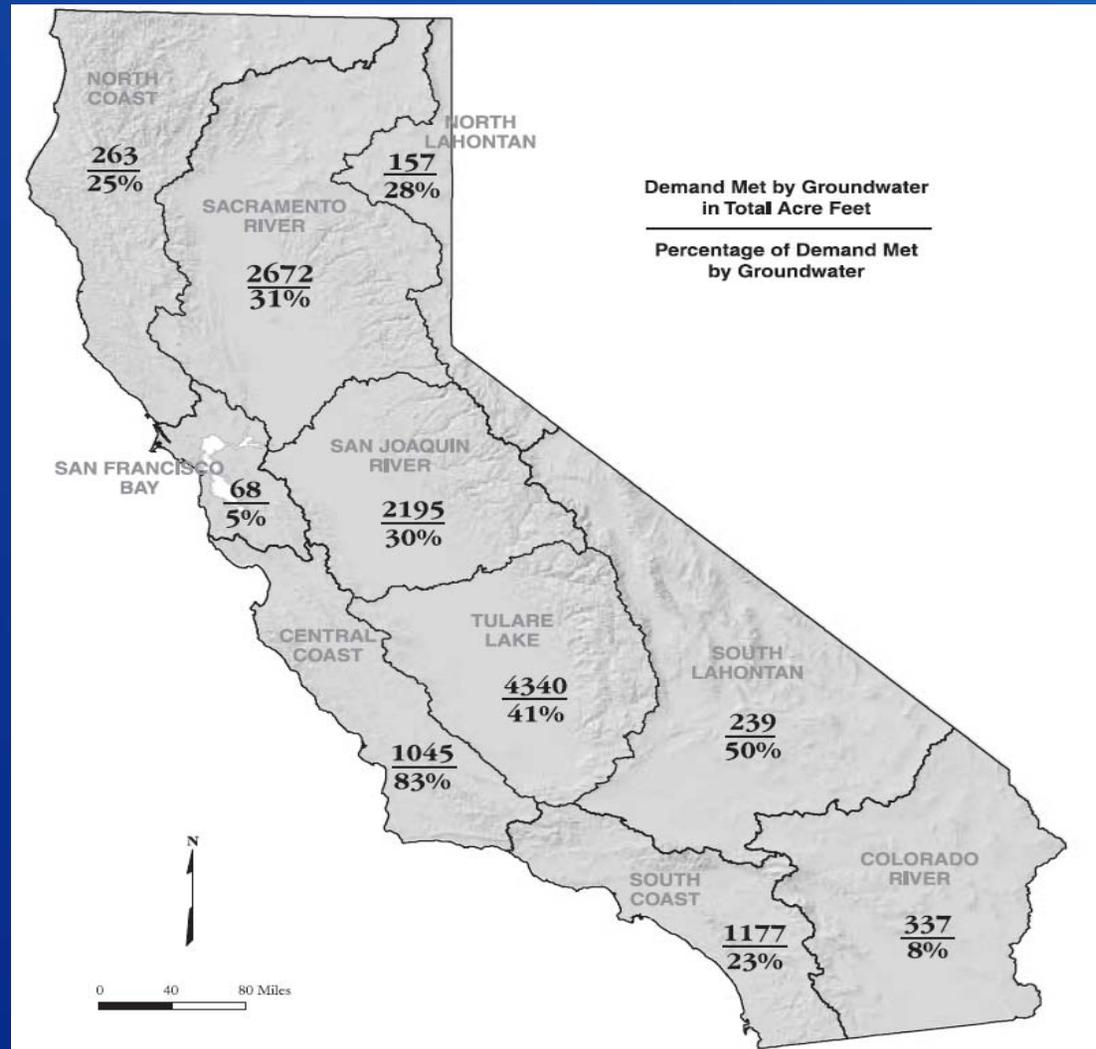
Water Banks

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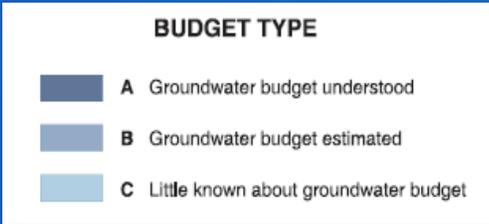
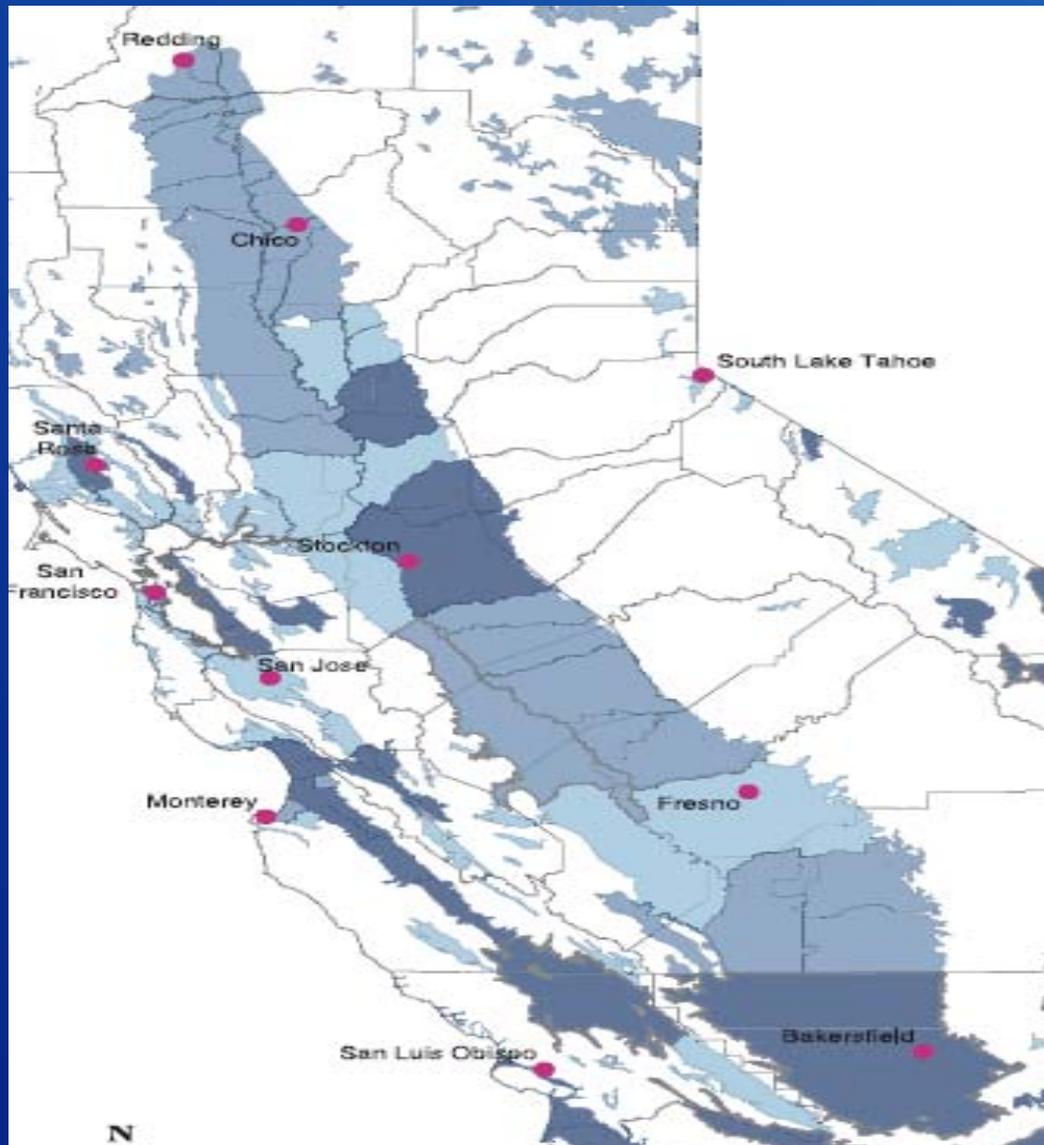


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Agricultural and Urban Demand Supplied by Groundwater in Each Hydrologic Region



Basin and Sub-basin Groundwater Budget Types



Definitions

- Conjunctive Use – The planned and coordinated use of surface and groundwater supplies to increase water supply reliability
- Groundwater Recharge – The natural or intentional infiltration of surface water into the zone of saturation
- Groundwater Banking – The intentional storage of supplies in subsurface aquifers with the expectation of subsequent retrieval for beneficial use by the depositor

2006 Conditional Approvals

- Wet year in 2006
- Surplus water to the Districts' needs
- Conditionally Approved Banking of Water that could be amended based on final guidelines and/or change in law

Groundwater Banking Checklist

- Name/Location of CVP Contractor
- Name/Location of groundwater bank
- Amount of CVP water to be banked
- The term of the banking arrangement
- Monthly or annual schedule of the amount of water to be banked (if known). Include future year amounts (if known & applicable)
- Provide copy of banking agreement between Depositor & groundwater bank

Groundwater Banking Checklist

– con't

- Explain **how water is surplus to immediate needs or is otherwise available** to be banked
- Explain the **method of conveyance** to the banking facility, include any power requirements
- **Conveyance losses**

Groundwater Banking Checklist

– con't

- **Banking losses** of water either at the time of banking or during the storage period
- Provide information on **how & where banked water** will be used after it is withdrawn
- Identify any **exchanges or State Board water right actions** required

Groundwater Banking Checklist

– con't

- Identify any **construction activities or modifications** to existing facilities
- Provide any information to assist in scoping the project & preparing documents to meet **requirements of NEPA, ESA, SHPO, and other Federal law**

Withdrawal of Previously Banked CVP Water

- **Proposal in writing** detailing what water is to be returned, how water will be used, where water will be used on return
- **NEPA/ESA**
- **Return of Water**
 - Conveyance requirements
 - **Exchange agreements**

Withdrawal of Previously Banked CVP Water (con't)

- If Delta operations involved, **coordination with CVO & DWR**
- If Friant operations involved, coordination with **FWUA**
- Advance documentation of **water quality compliance**

Banking Actions

- Kern Tulare WD – No. Kern WSD
- Kern Tulare & Rag Gulch WD's –
Rosedale-Rio Bravo WSD
- Marvin Meyers – Marvin Meyers Water
Banking Projects

Banking Actions

- WWD – Semitropic WSD
- Santa Clara Valley WD – Semitropic WSD
- Poso Creek Mutual Water Company, LLC
– Semitropic WSD

Banking Actions

- Madera Irrigation District – Semitropic WSD
- Madera Irrigation District - Madera Ranch Pilot Project
- Delano-Earlimart ID – North Kern

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Status of Guidelines

- 3 Scoping Sessions in the Fall 2006
- Comments have been evaluated and Guidelines drafted
- Currently being reviewed internally by Management
- Taking time since no banking actions are anticipated this year

Guideline Elements

- **A. Duration – length of banking actions**
- **B. Use of Banked Water – terms and conditions**
- **C. Ability to Convey and Store – direct, in-lieu of, exchange agreement, etc...**
- **D. Ability to Recover Banked Water**
- **E. (3rd party) Impacts**

Guideline Elements (Con't)

- **F. Deposits and Withdrawals – groundwater banking facility and direct or exchange**
- **G. Accounting and Records – required documentation needed for approval**
- **H. Transfer of Banked Water**
- **I. Schedule – banking water and return of water**
- **J. Water Quality – compliance with applicable laws**

BUREAU OF RECLAMATION

Ground Water Banking Website:

<http://www.usbr.gov/mp/waterbanking>



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