



Water Education Foundation

October 22, 2014

WHY JUST
THE
STATE
OF
JEFFERSON?

LET'S
BREAK CALIFORNIA
UP INTO
19
STATES...

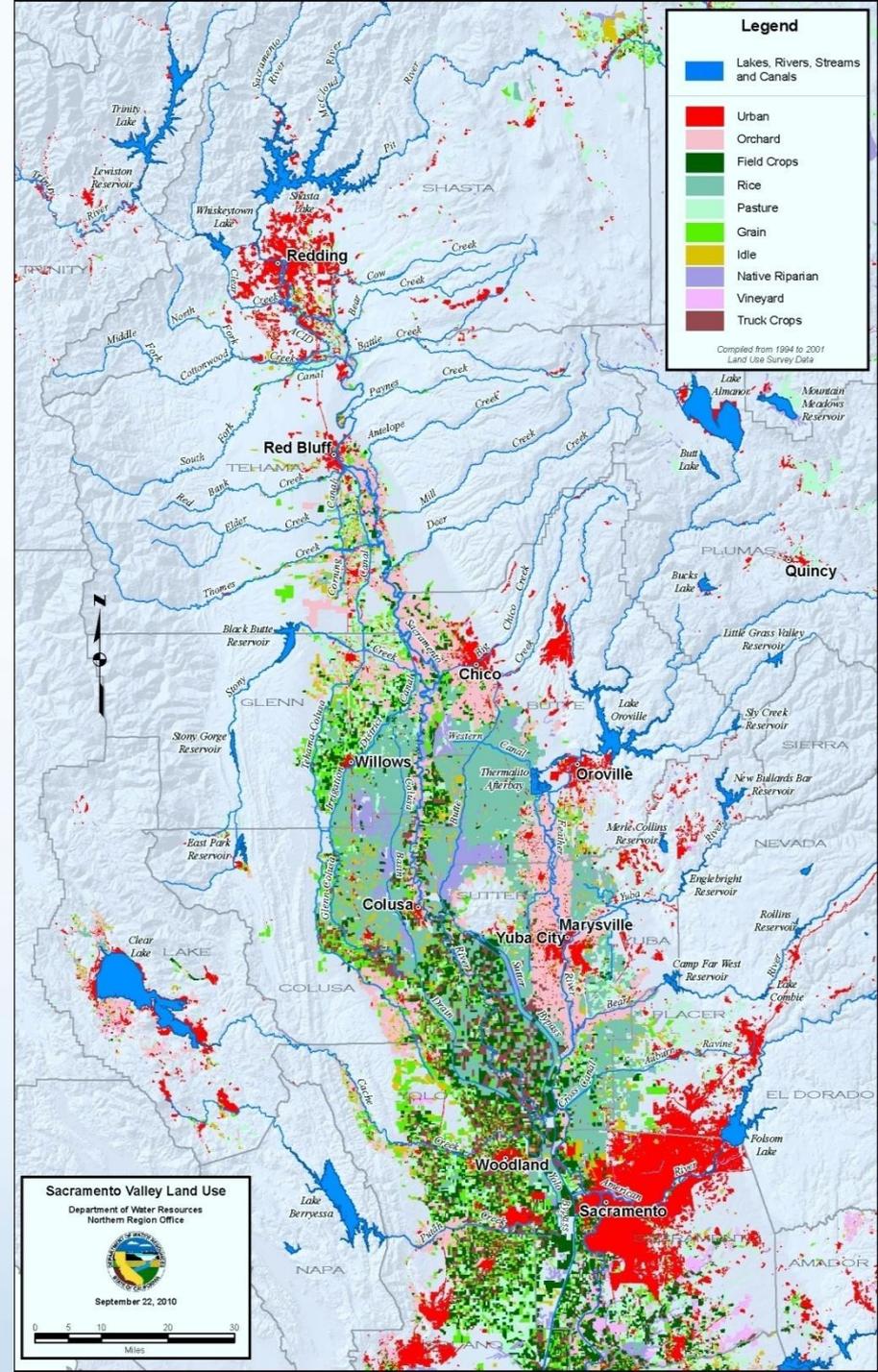


Sacramento Valley – A truly unique and exceptional place

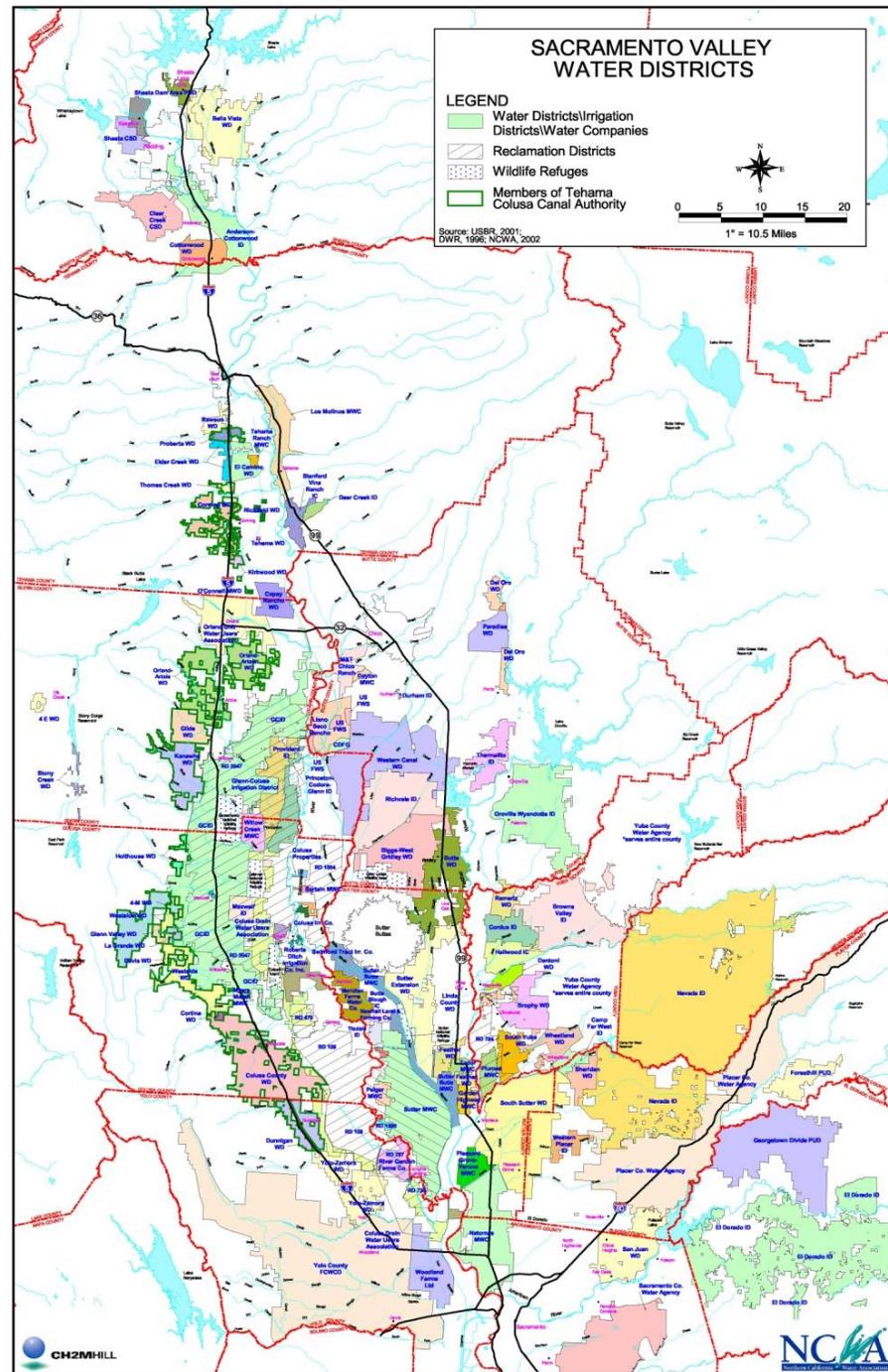


Sacramento Valley Hydrologic Region – Land Uses

- **Urban**
- **Agriculture**
 - **By crop type**
- **Wetlands**



Water Resources Management Entities



Sacramento Valley Sustainability Initiative

Provide a sustainable water supply for the unique mosaic of farm lands, wildlife refuges, managed wetlands and high quality rivers and streams that support waterfowl habitat and spawning grounds for numerous fish species and the cities and rural communities that make up this special region.



Sacramento Valley

Several million acres of **family farms** that provide the economic engine for the region through the production of rice, trees, and various row crops that serve as a working landscape and pastoral setting and provide valuable habitat for waterfowl along the Pacific Flyway.



Sacramento Valley



Habitat for 50% of the *threatened and endangered* species in California, including the winter-run and spring-run salmon, steelhead and many other fish species.

Sacramento Valley

Six **National Wildlife Refuges**, more than fifty state **Wildlife Areas** and other privately managed wetlands that support the annual migration of waterfowl, geese and shore birds in the Pacific Flyway.

These seasonal and permanent wetlands provide 65% of the North American Waterfowl Management Plan objectives.



Sacramento Valley

The **small towns and rural communities** that form the backbone of the region, as well as the **State Capital** that serves as the center of government for the State of California.



Sacramento Valley

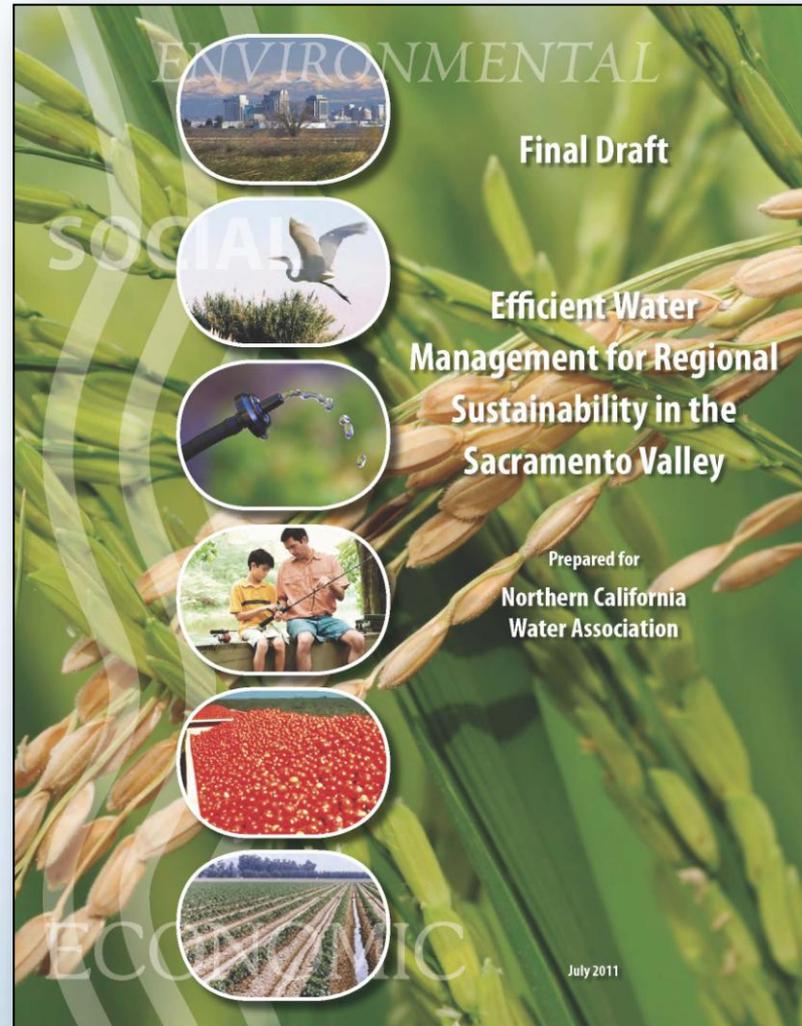
The forests, meadows and canyons
in the **watersheds** of the Sierra
Nevada and Coast Range.



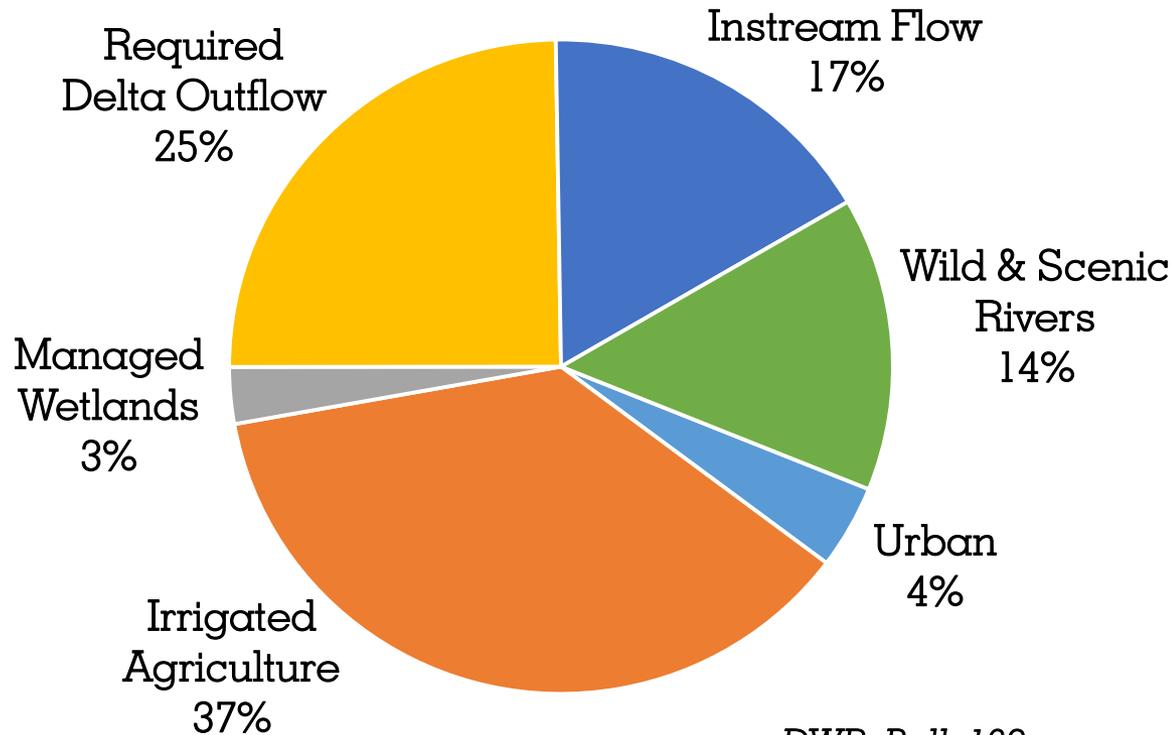
Cornerstone for Central Valley/ State Water Projects



The Context for Water Management in the Sacramento Valley



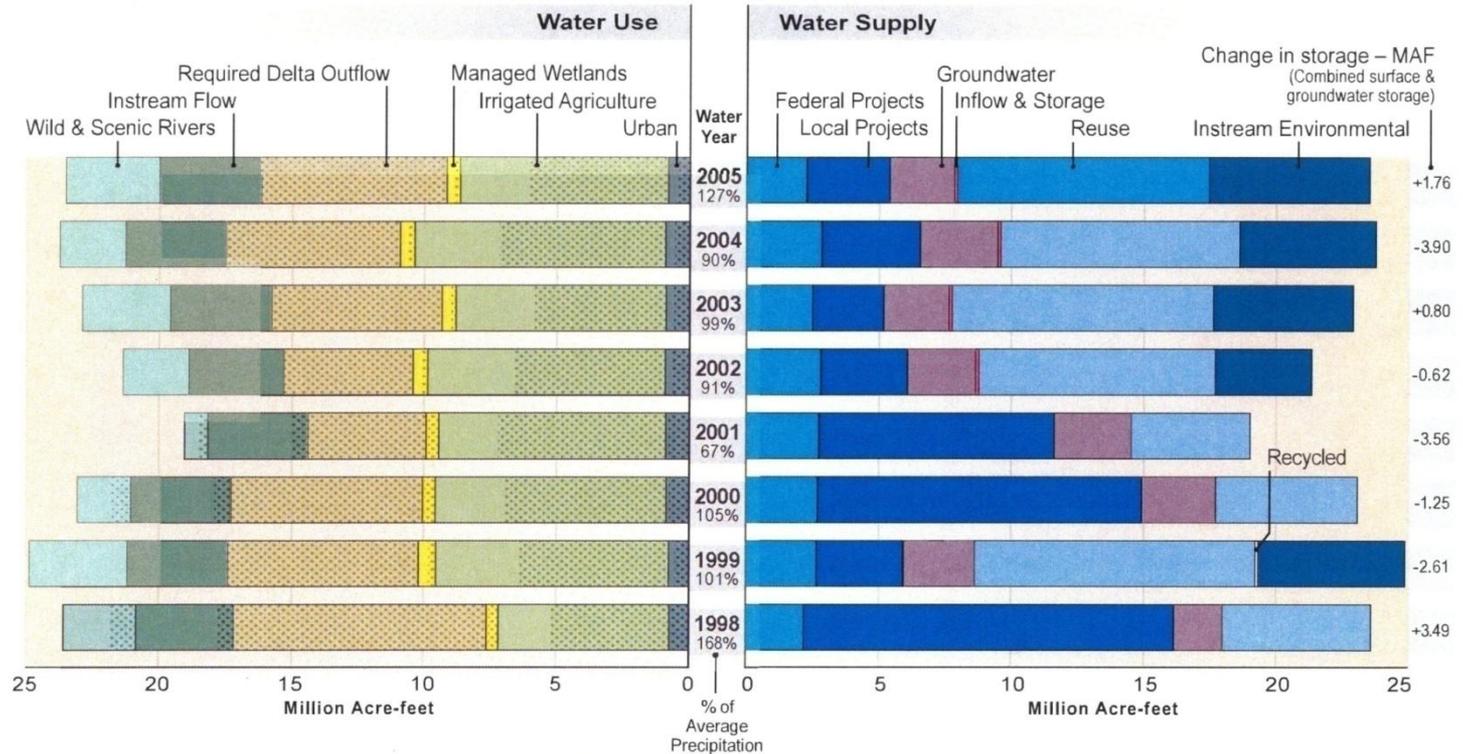
Sacramento River Hydrologic Region Water Use



DWR, Bull. 160

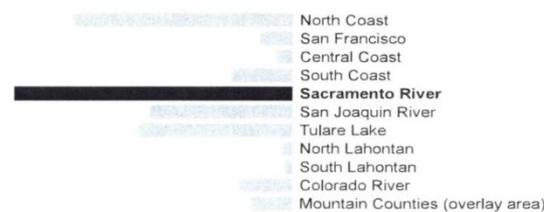
A Region in Balance?

Figure SR-2 Sacramento River Hydrologic Region water balance summary, 1998-2005



Stippling in bars indicates depleted (irrecoverable) water use (water consumed through evapotranspiration, flowing to salt sinks like saline aquifers, or otherwise not available as a source of supply)

Comparison of 2005 total water use

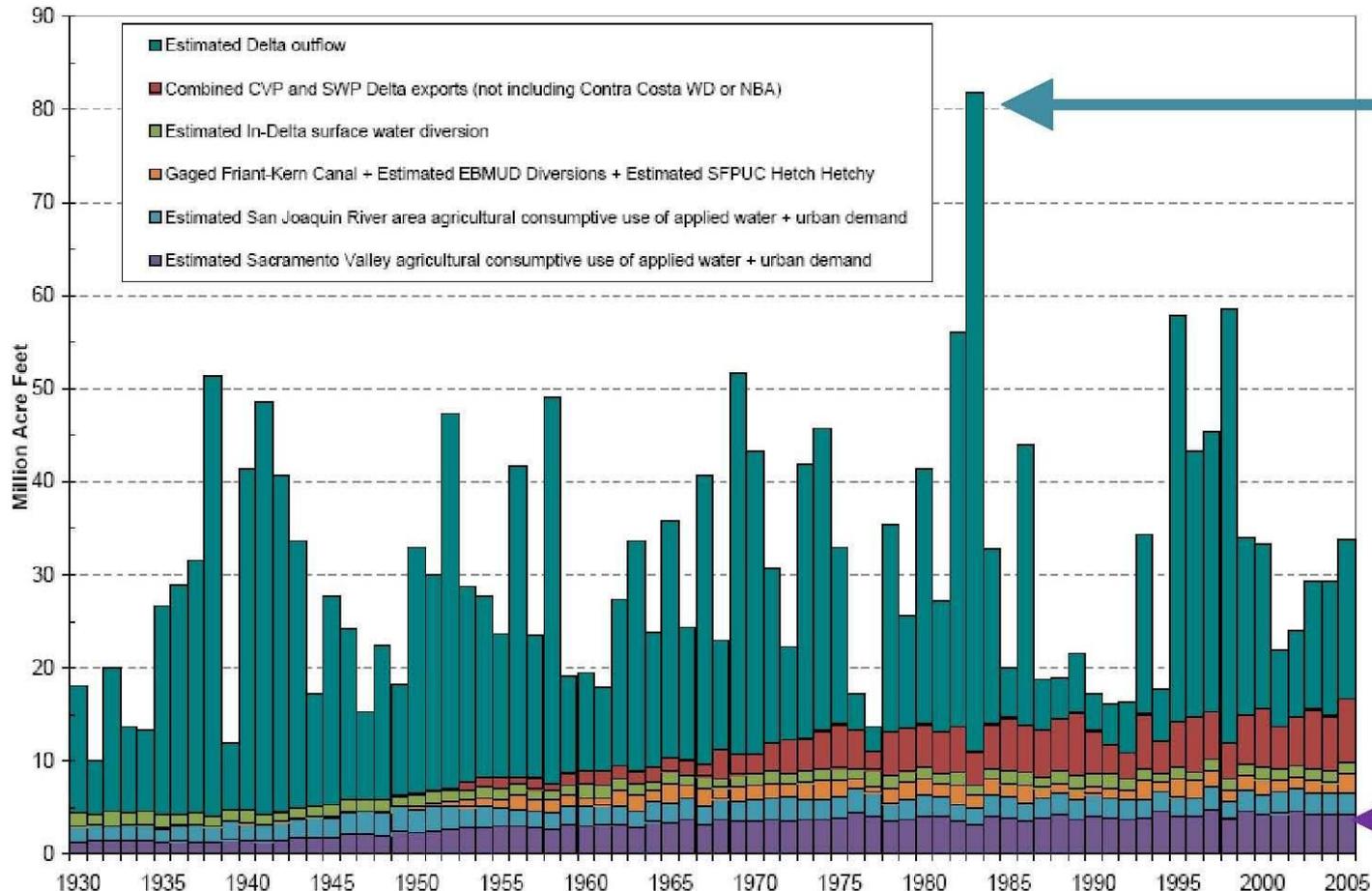


25 MAF

Stable Sacramento Basin Water Use

Delta Vision Blue Ribbon Task Force (2007):

Revised Figure 7b - "Historic Diversion from the Delta"



Hydrology is the biggest variable

Sacramento Basin use has been essentially constant since the mid-1970's

The Context for Water Resources Management Decisions

- Hydrology of the Sacramento Valley – a “flow through” system
- Goal is sustainability
- Better understand trade-offs among beneficial uses
- Only water lost is through consumption
- Timing opportunities - contribute to fish passage, habitat and water quality improvements

Water Management Opportunities

Accounting for every drop. Water management in the Sacramento Valley.

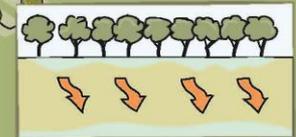
In the Sacramento Valley, a highly efficient "flow-through" system allows water to move from mountains to ocean. Water resources managers work with the Valley's unique topography, geology and hydrology to gather, use and reuse this precious resource.

This system is the heart of the Valley's healthy ecosystem, diverse economy and rich recreational opportunities.

Rice is grown on dense clay soil which prevents seepage and ensures water is available for re-use downstream.



The water not used in one district is a source of water for others downstream.



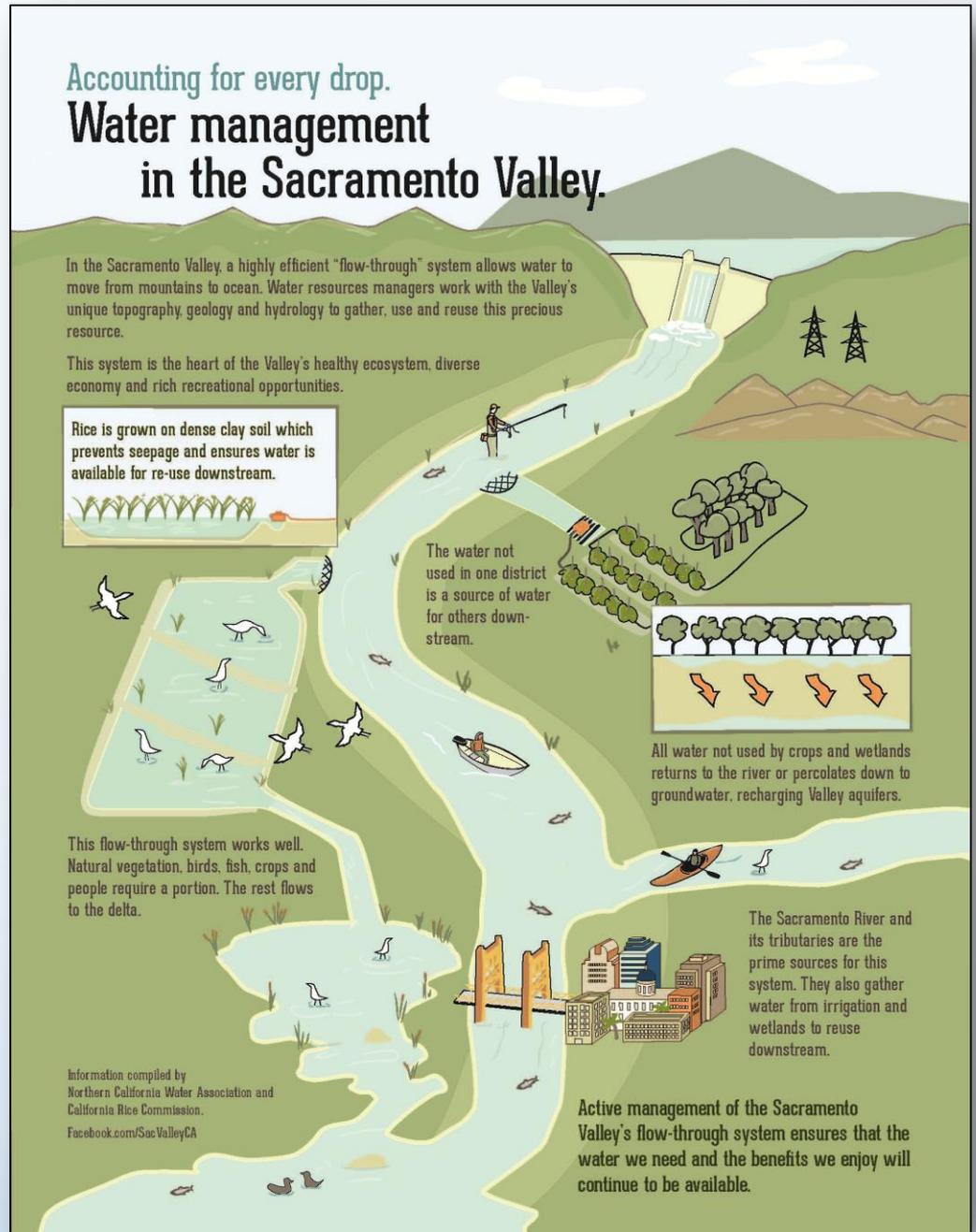
All water not used by crops and wetlands returns to the river or percolates down to groundwater, recharging Valley aquifers.

This flow-through system works well. Natural vegetation, birds, fish, crops and people require a portion. The rest flows to the delta.

Information compiled by
Northern California Water Association and
California Rice Commission.
[Facebook.com/SacValleyCA](https://www.facebook.com/SacValleyCA)

The Sacramento River and its tributaries are the prime sources for this system. They also gather water from irrigation and wetlands to reuse downstream.

Active management of the Sacramento Valley's flow-through system ensures that the water we need and the benefits we enjoy will continue to be available.



Restoring the Salmon Runs

Restoring the Salmon Runs - a Time for Action

Sacramento Valley water resources managers are partnering with federal and state agencies and conservation organizations to improve migratory corridors and habitat for salmon. The measures taken and the money spent – more than \$1 billion over the past two decades – have been helpful but there is still more work ahead to restore the salmon runs.

Fish screens More than 80 percent of the water diverted from the Sacramento River system for wildlife refuges, farms, cities and rural communities is pumped through state-of-the-art fish screens, while the fish stay safe, healthy and in the river.

Spawning gravel is reintroduced to rivers and streams to improve spawning habitat. Over 200,000 tons of gravel has been added to the Sacramento River since 1997.

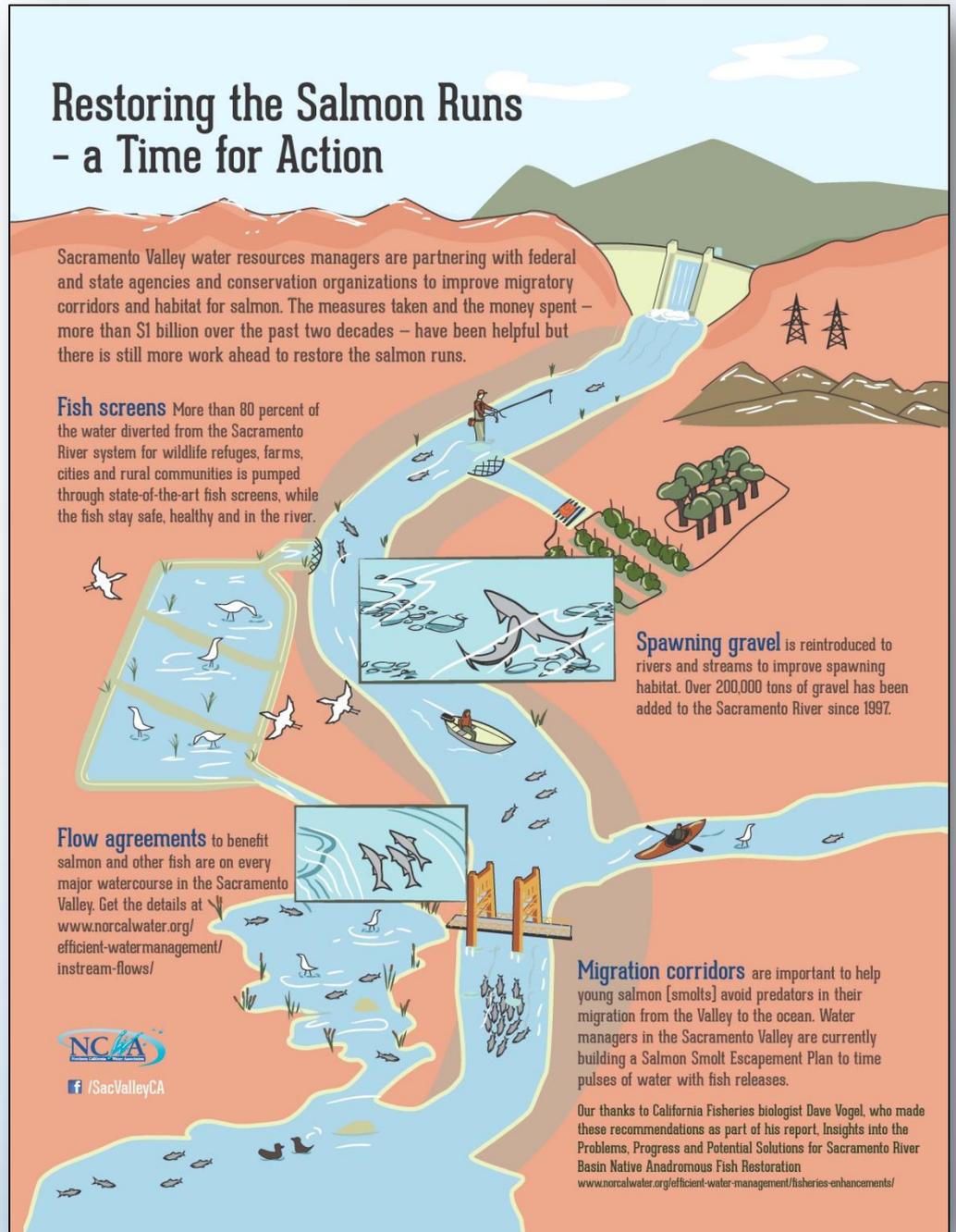
Flow agreements to benefit salmon and other fish are on every major watercourse in the Sacramento Valley. Get the details at www.norcalwater.org/efficient-water-management/instream-flows/

Migration corridors are important to help young salmon [smolts] avoid predators in their migration from the Valley to the ocean. Water managers in the Sacramento Valley are currently building a Salmon Smolt Escapement Plan to time pulses of water with fish releases.

Our thanks to California Fisheries biologist Dave Vogel, who made these recommendations as part of his report, *Insights into the Problems, Progress and Potential Solutions for Sacramento River Basin Native Anadromous Fish Restoration*
www.norcalwater.org/efficient-water-management/fisheries-enhancements/



f /SacValleyCA



Re-Managing the Flow

Re-managing the Flow

The major rivers and streams of the Sacramento Valley provide essential pathways for spawning salmon and steelhead. Flow agreements to benefit these fish are on every major watercourse in the Sacramento Valley.



For more details visit www.norcalwater.org/efficient-water-management/instream-flows/

3/26/94

OTHER OPINIONS



'I do too know something about water! I drink Perrier!'

Pacific Flyway Habitat

Pacific Flyway Habitat in the Sacramento Valley.

Considerable progress has been made to enhance habitat for migratory waterfowl, wintering shorebirds, raptors, riparian songbirds and other wetland dependent species in the Sacramento Valley.

During the winter, reliable water supplies in the Sacramento Valley flood harvested rice fields, provide habitat, irrigate managed wetlands and deliver water to refuges and wildlife areas.

Flooded rice fields, National Wildlife Refuges and State Wildlife Management Areas and intensively managed private wetlands help compensate for the 95% of Central Valley wetlands lost over the years.

National Wildlife Refuges and State Wildlife Areas in the Sacramento Valley provide nearly 27,000 acres of wetland habitats, while privately-managed wetlands provide another 43,000 acres.

Up to 350,000 acres of rice are flooded each winter to provide bird habitats. An additional 43,000 acres of Sacramento Valley wetlands rely on the water drained off rice fields for fall flooding.

The amazing array of bird habitat in the Sacramento Valley receives surface water directly from irrigation water suppliers or indirectly from the return flow of surface water.

Nearly seven million waterfowl and 300,000 shorebirds rely on the Sacramento Valley for food and habitat. Other species which benefit include raptors, riparian songbirds and additional wetland dependent species.

Active management of the Sacramento Valley's flow-through system ensures that the water needed for birds and their habitats will continue to be available.

Information compiled by
Northern California Water Association
www.nocalwater.org
California Rice Commission
www.calrice.org



Sacramento River Conservation Area

- Established 1986 (SB1086)
- Management plan to protect, restore and enhance the fisheries and riparian habitat along the Sacramento River from Keswick Dam down river to Verona. This effort is cooperative in nature and works to ensure that habitat restoration and management addresses not only the dynamics of riparian ecosystems, but also the realities of local agricultural and recreational issues associated with land use changes occurring along the river.

Improving Water Quality

A Regional Plan for Action

*The Sacramento Valley
Water Quality Coalition*



Land Use/Water Supply Planning

Sacramento Valley

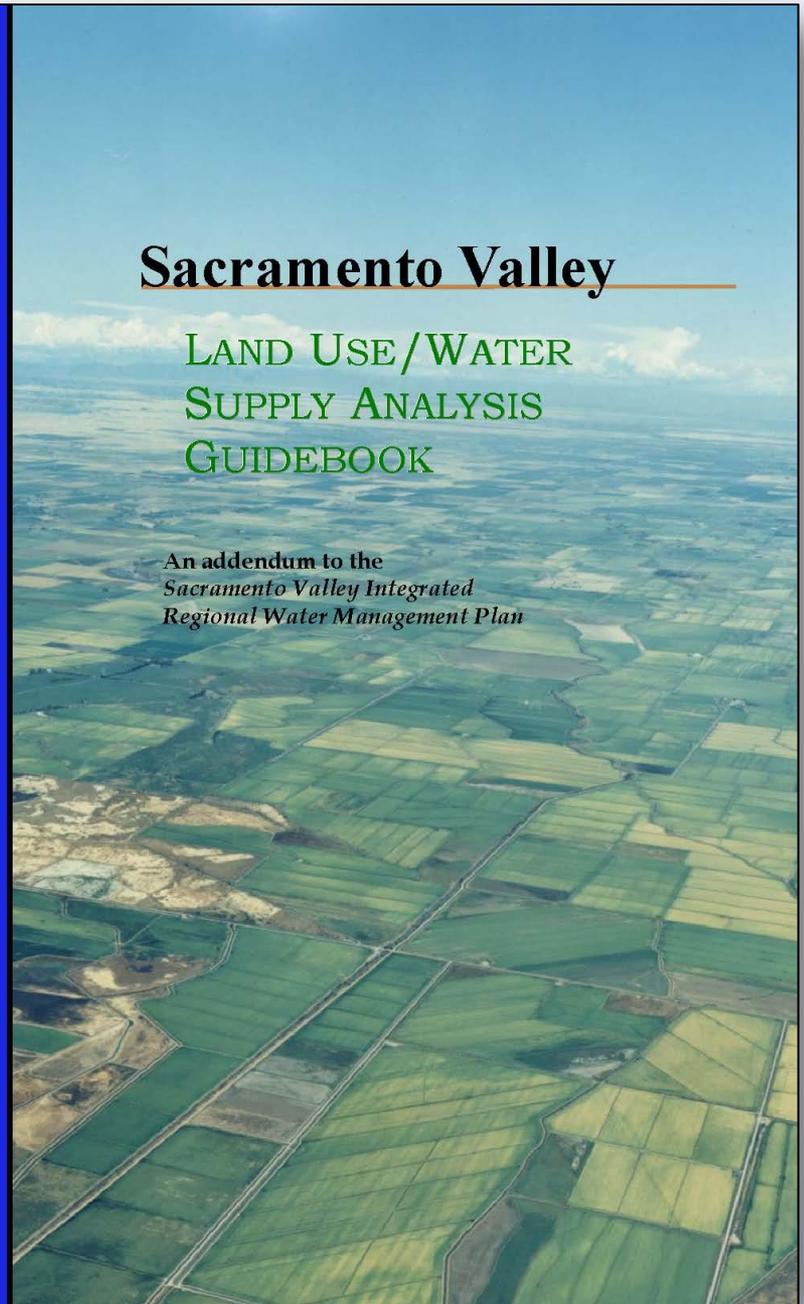
LAND USE/WATER SUPPLY ANALYSIS GUIDEBOOK

*An addendum to the
Sacramento Valley Integrated
Regional Water Management Plan*

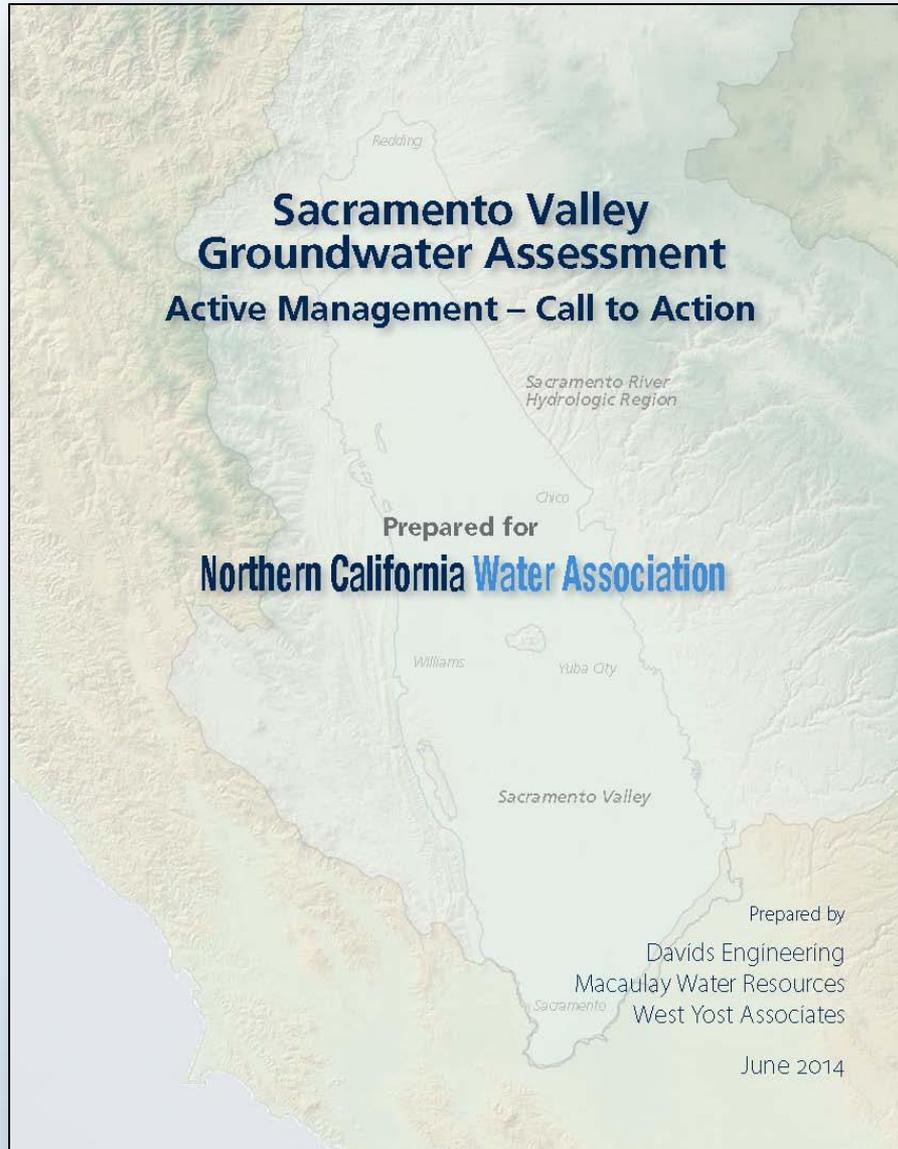
Prepared for:



November 2007



Active Groundwater Management

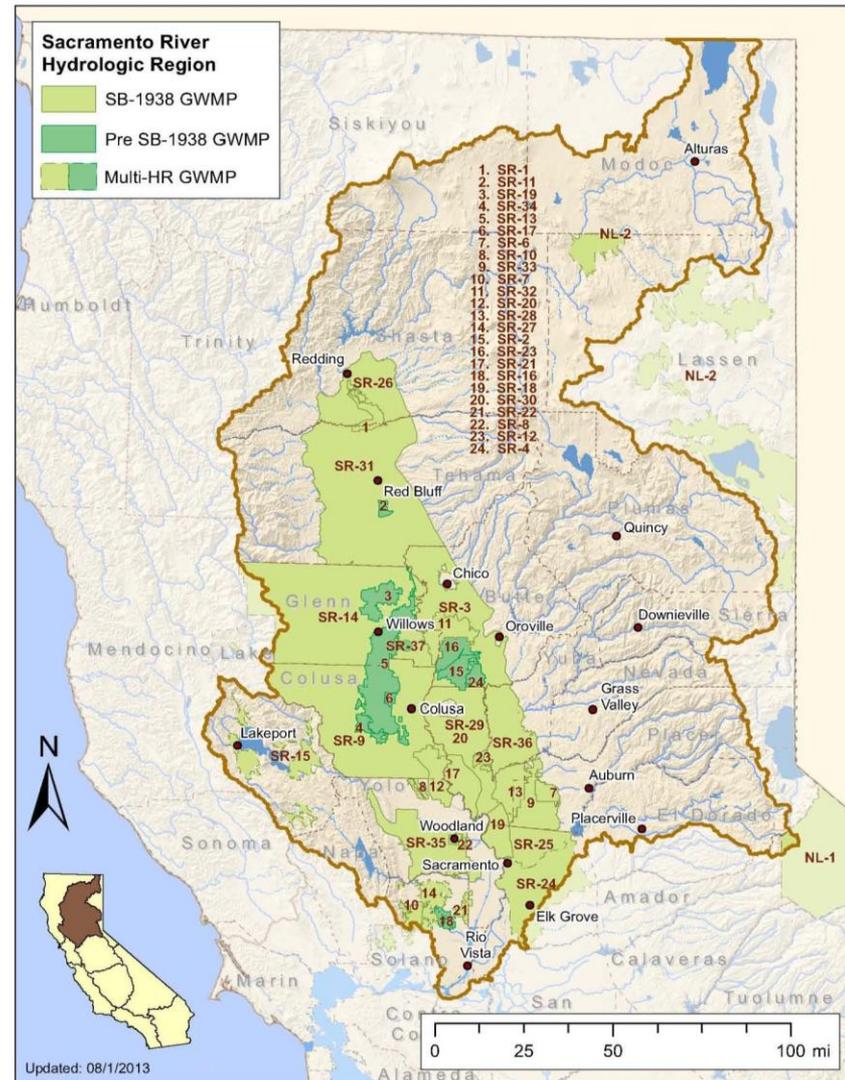


Local Groundwater Management

CA Department of Water Resources

Groundwater Management Plans

Sacramento River HR Plan



http://www.water.ca.gov/groundwater/groundwater_management/GWM_Plans_inCA.cfm

http://www.water.ca.gov/groundwater/docs/GWMP/HR_SacramentoRiver_GWMP.pdf

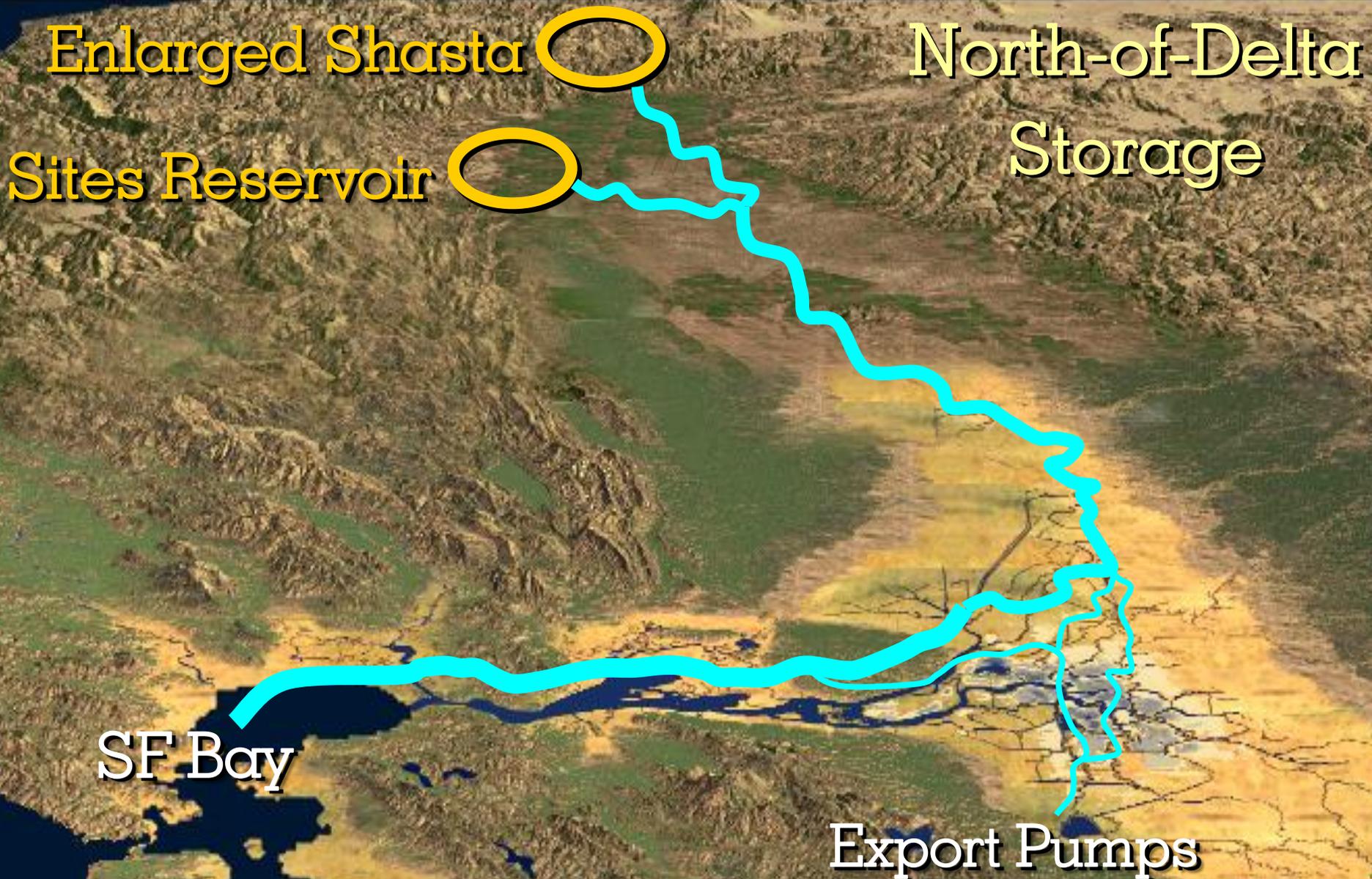
Sites Reservoir

Building the Sites Reservoir

WATER FOR OUR CITIES, FARMS AND WILDLIFE



Sacramento Valley Smart Storage



California Water Security

Vote **YES**
on **Prop. 1**

Paid for by Sac Valley Water & Rice for Prop 1



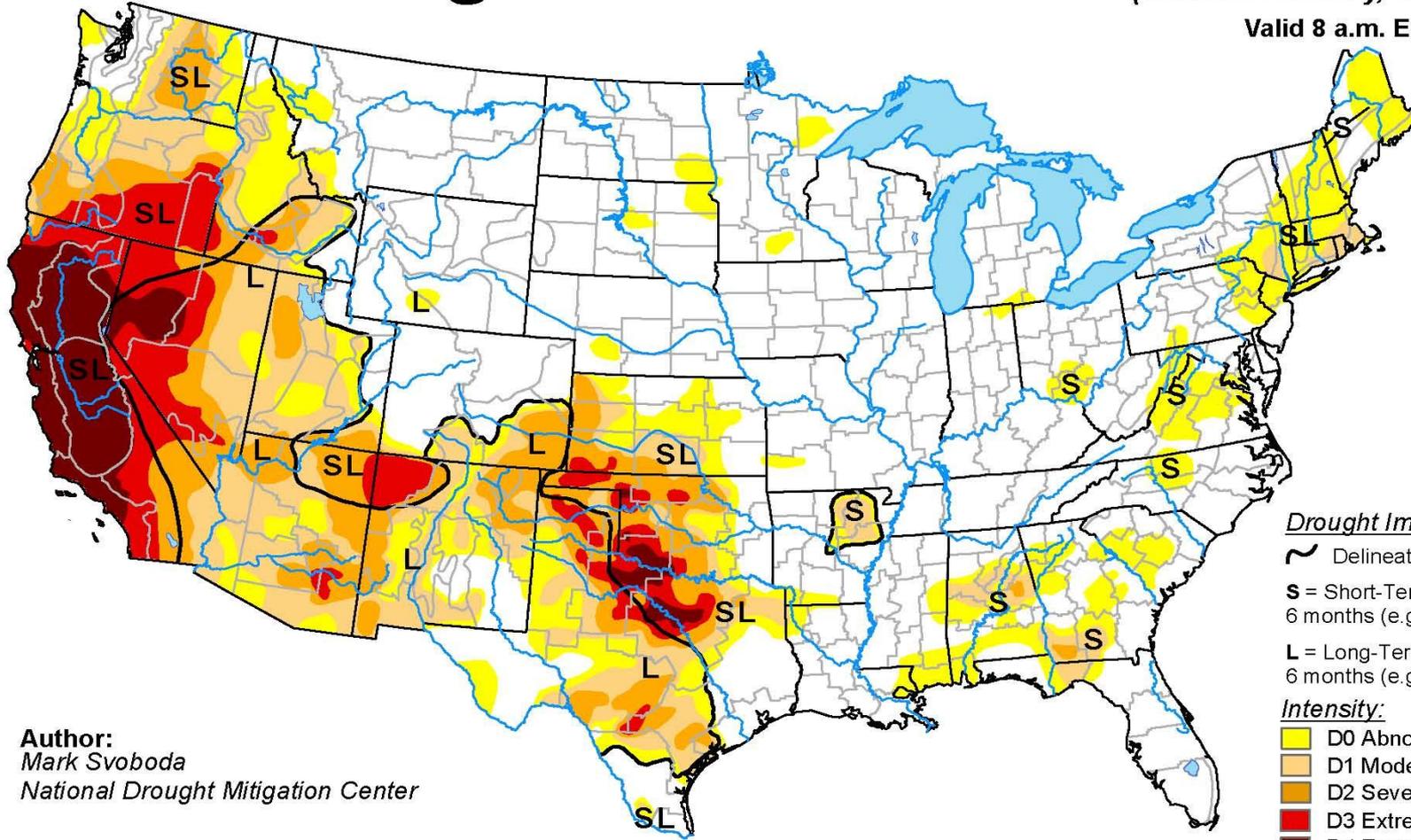
ENTERING

CALIFORNIA

**BRING
YOUR
OWN
WATER**

U.S. Drought Monitor

October 14, 2014
(Released Thursday, Oct. 16, 2014)
Valid 8 a.m. EDT



Author:
Mark Svoboda
National Drought Mitigation Center

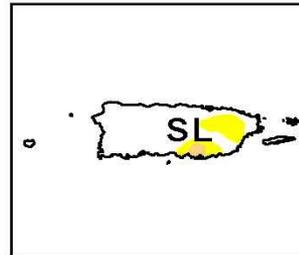
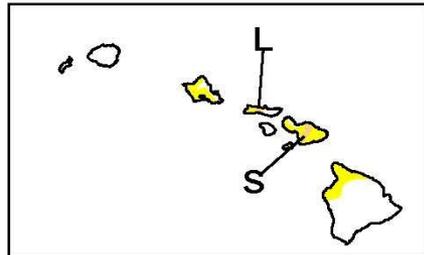
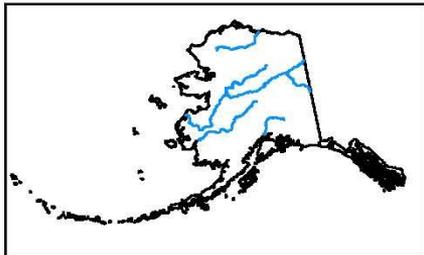
Drought Impact Types:

- ~ Delineates dominant impacts
- S = Short-Term, typically less than 6 months (e.g. agriculture, grasslands)
- L = Long-Term, typically greater than 6 months (e.g. hydrology, ecology)

Intensity:

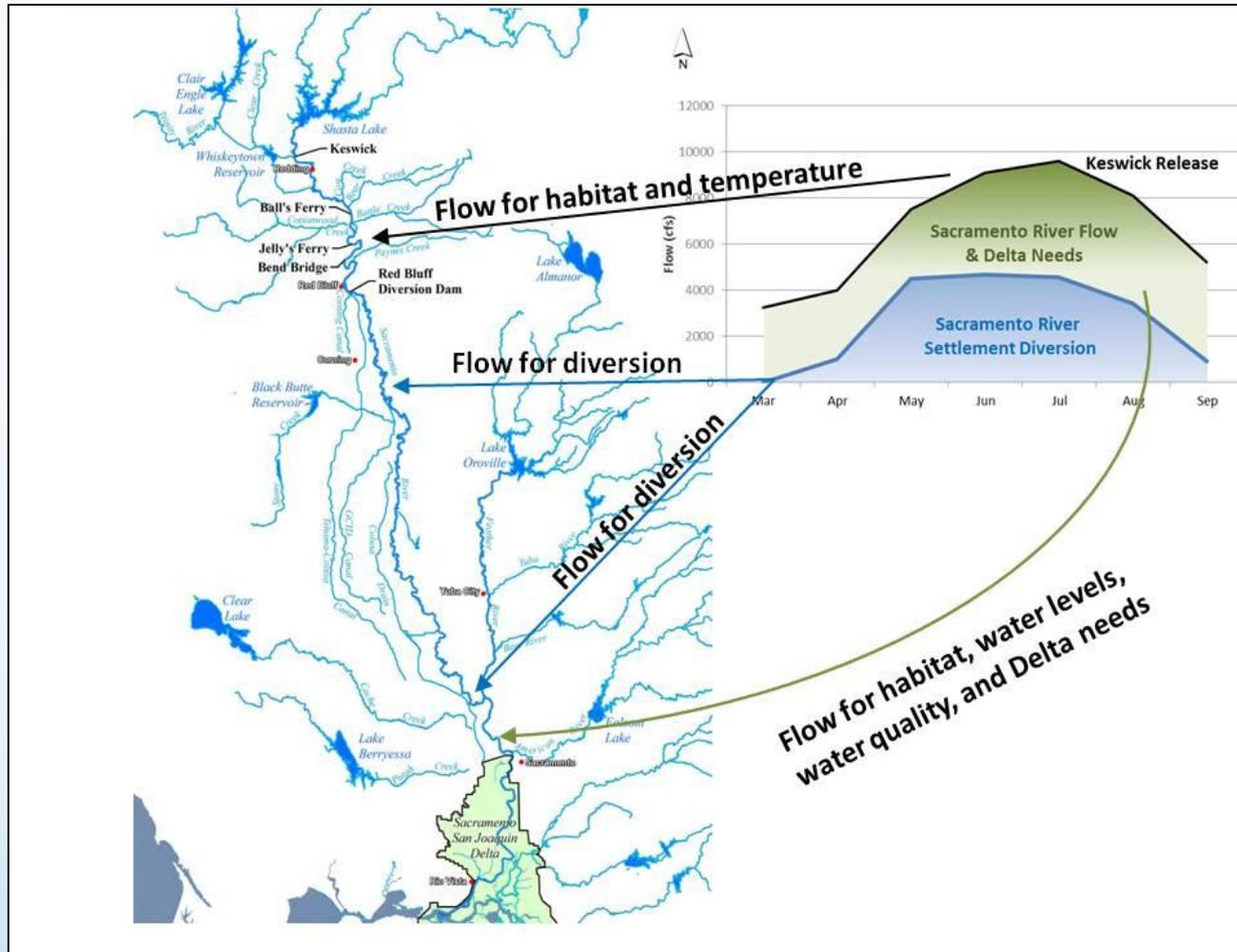
- D0 Abnormally Dry
- D1 Moderate Drought
- D2 Severe Drought
- D3 Extreme Drought
- D4 Exceptional Drought

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.



<http://droughtmonitor.unl.edu/>

Water Serving Triple Duty in the Sacramento Valley



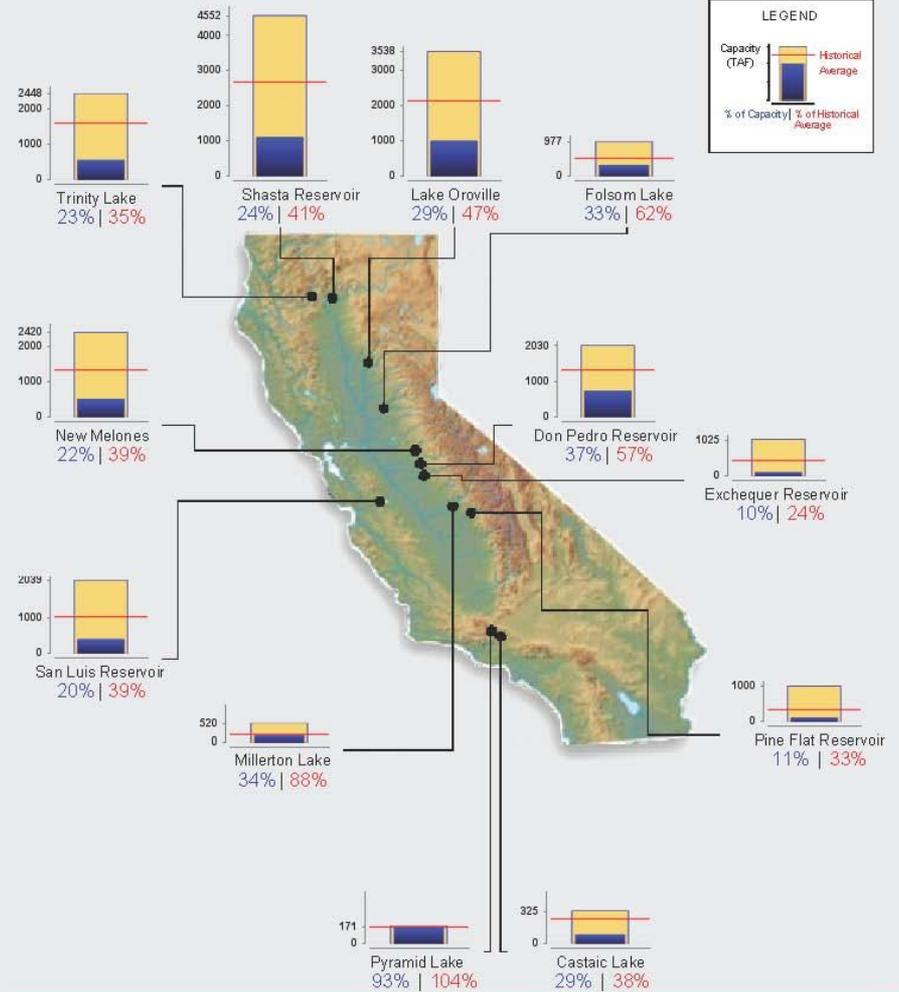
Current Reservoir Conditions



Reservoir Conditions

Ending At Midnight - October 20, 2014

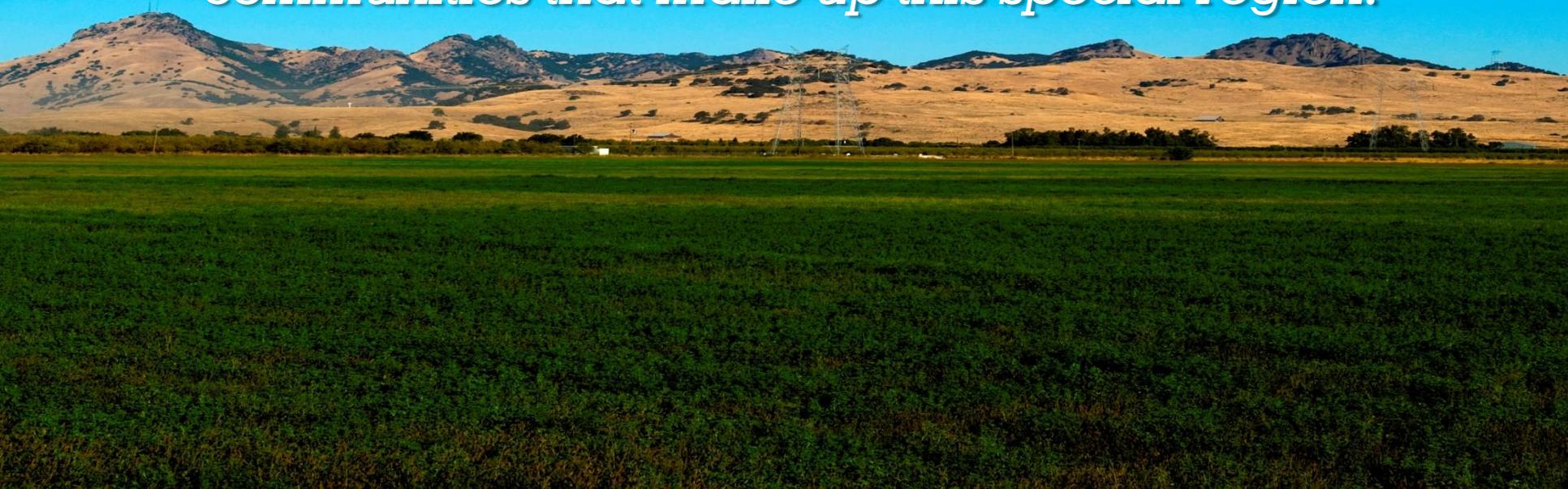
CURRENT RESERVOIR CONDITIONS



Graph Updated 10/21/2014 12:15 PM

Sacramento Valley Sustainability Initiative

Provide a sustainable water supply for the unique mosaic of farm lands, wildlife refuges, managed wetlands and high quality rivers and streams that support waterfowl habitat and spawning grounds for numerous fish species and the cities and rural communities that make up this special region.



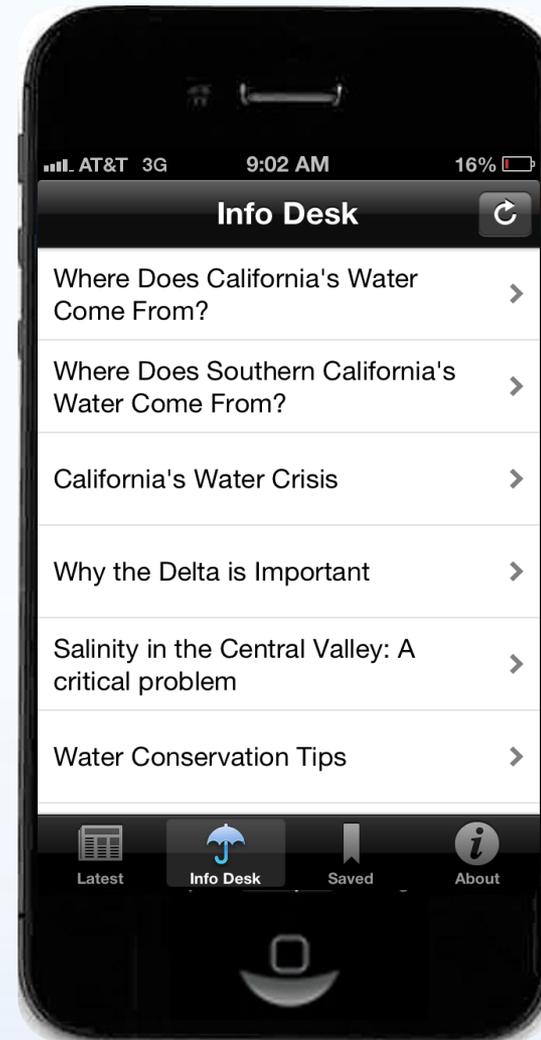
Aquafornia



AQUAFORNIA

The California Water News Blog

www.aquafornia.com



Voices from the Valley

www.norcalwater.org

Blogs from the Valley

NCWA Honors

At NCWA's 20th Annual Meeting Joe Scalmamani and George Basye were honored with the Innovative Water Management Water Award and the Will S. Green Award.

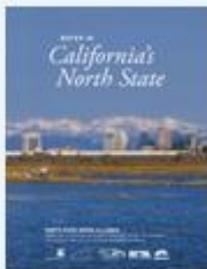
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Featured Items



Water Conservation & Efficiency in the Sac Valley: Active Water Resources Management in a Flow-Through System.

[DOWNLOAD »](#)



Water in California's North State
For more information please visit northstatewater.org

[DOWNLOAD »](#)

David Guy's Blog

This blog explores the intersection between water, food and the environment — with a focus on the increasing challenges facing California and our efforts to manage and preserve our natural resources for present and future generations.

[MORE »](#)



AQUAFORNIA

The California Water News Blog

by the Water Education Foundation

Think about...

- Special nature of the region
- Highly managed system
- Integrated nature of system
- Operation of CVP/SWP
- Are we in balance?
- Partnerships
- Creativity within legal framework
- Passion for the region



An aerial photograph of a winding river in a rural landscape. The river flows through a valley, bordered by green grassy banks and roads. In the background, there are fields, some with crops, and a few buildings. The sky is clear and bright, suggesting a sunny day. The overall scene is peaceful and scenic.

What's at Stake?

The importance of protecting
water resources in the
Sacramento Valley