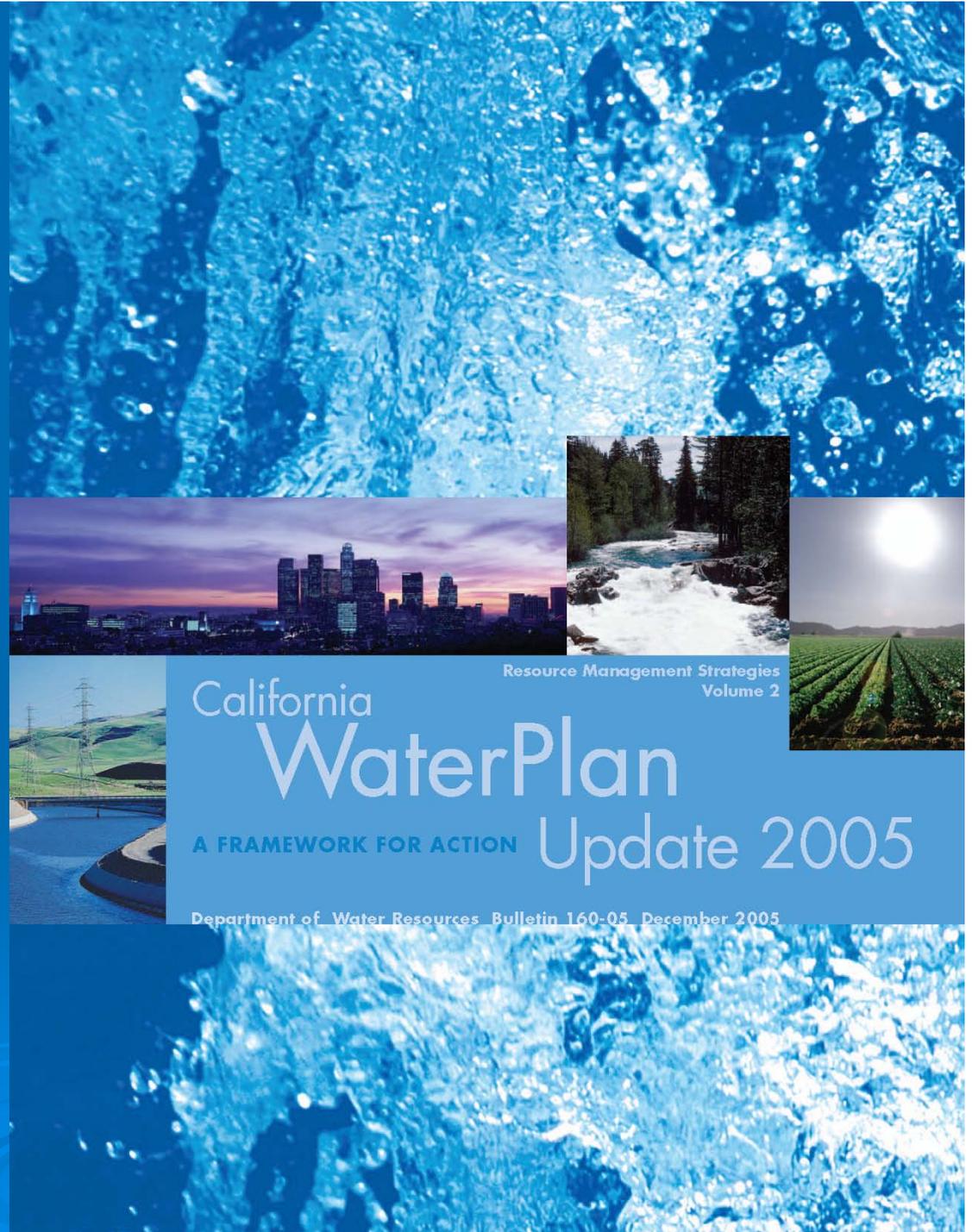


California Water Plan Update 2009

North Lahontan Regional Report Public Review Draft Overview

2009 Regional Workshops

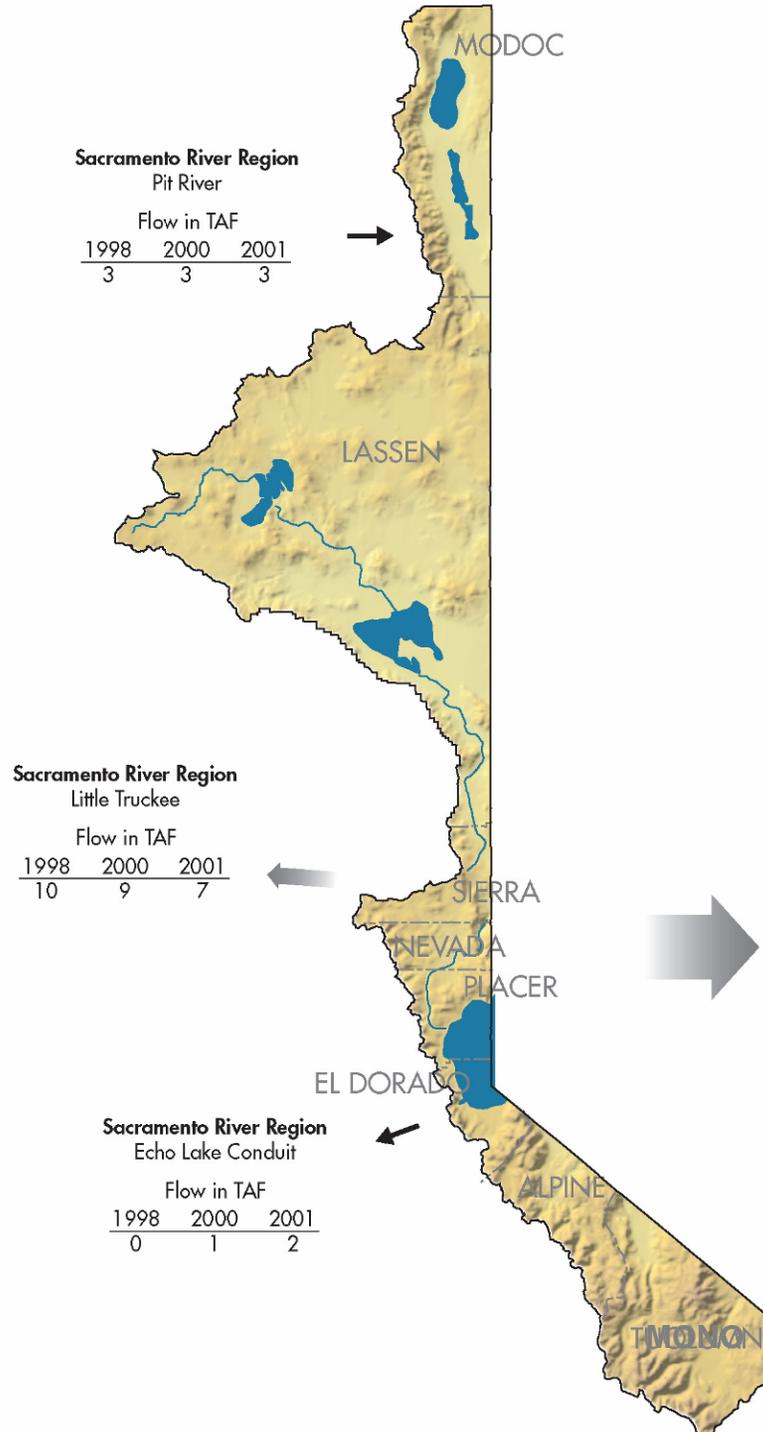
John Headlee, DWR
No. Central Reg. Ofc



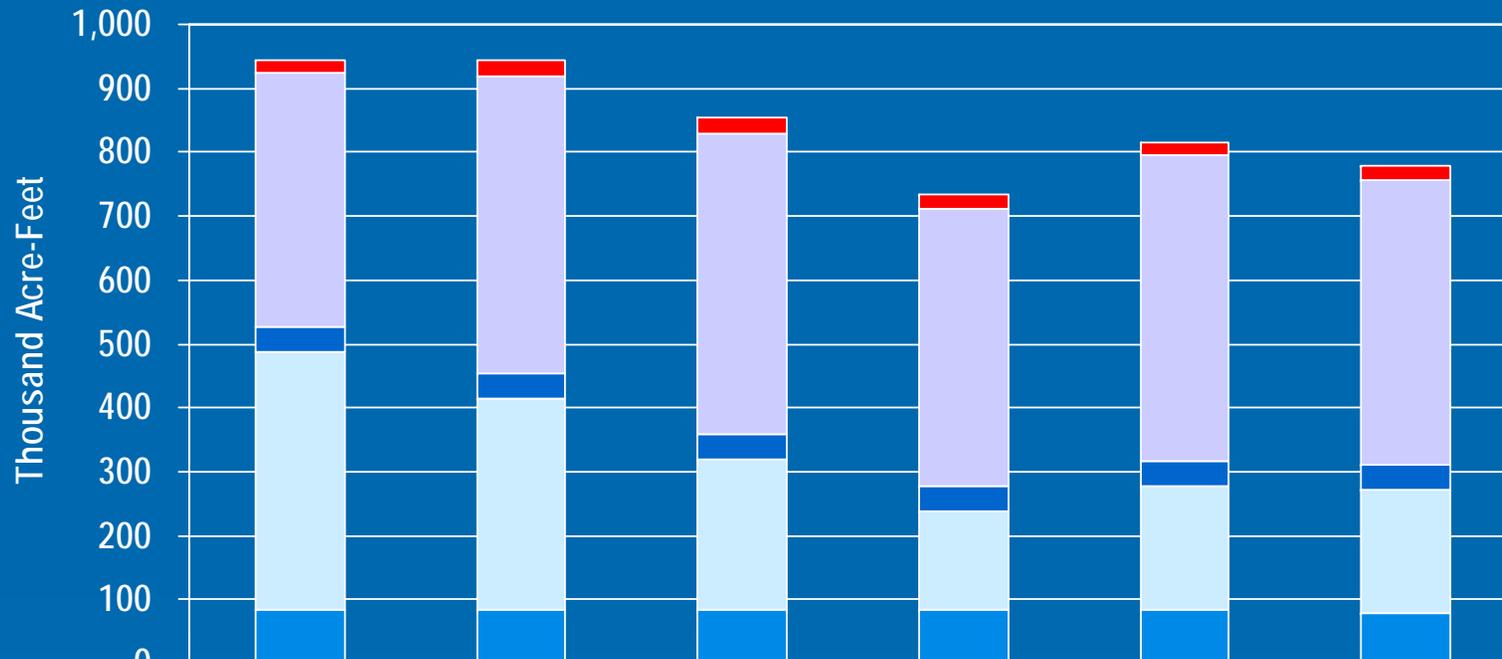
Regional Reports Table of Contents

- **Setting** – background factors
- **Regional Water Conditions** – current status of water resources, water quality, flood protection, and water governance
- **Relationship with Other Regions** – if and how a region is affected by, or affects, other regions
- **Regional Water and Flood Planning and Management** – status of Integrated Regional Water Management and other regional/local plans
- **Looking to the Future** – regional response strategies
- **Water Portfolios for 1998-2003** – water supply & use balances showing – regional water uses, local & imported supply sources, and water to other regions
- **Selected References** – information supporting the narrative

North Lahontan Hydrologic Region



Portfolio Data – Applied Water Use



	1998	1999	2000	2001	2002	2003
Managed Wetlands	18.7	24.8	25.9	20.5	21.1	20.1
Irrigated Agriculture	398	466	471	435	479	446
Urban	38.2	39.5	40.4	40.6	38.1	39.5
Wild & Scenic Rivers	404	330	233	153	193	193
Instream Flow	85	85	85	85	85	80

SVI Year Type

WET

WET

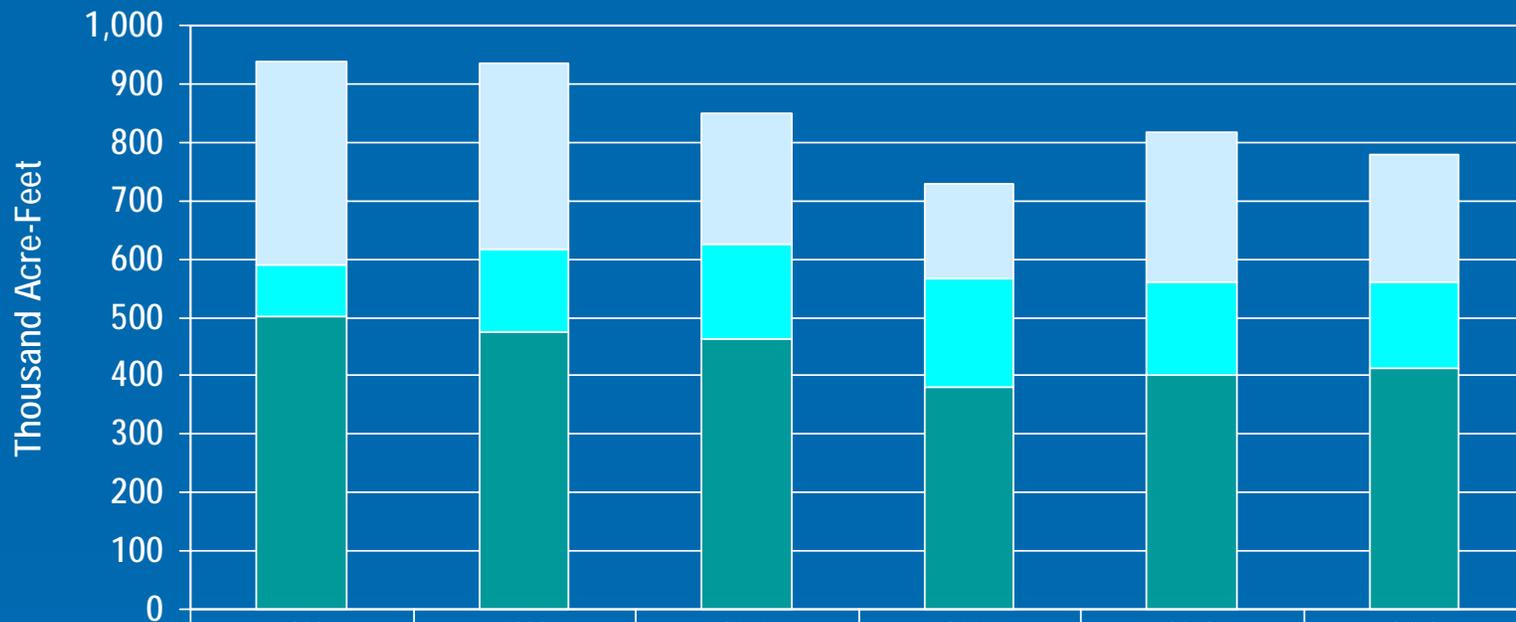
ABOVE
NORMA
L

DRY

DRY

ABOVE
NORMA
L

Portfolio Data – Water Supply Regional Water Conditions



	1998	1999	2000	2001	2002	2003
Reuse & Recycle	349	320	224	162	256	219
Groundwater	89	141	162	184	159	147
State Project	0	0	0	0	0	0
Federal Projects	0	0	0	0	0	0
Colorado Project	0	0	0	0	0	0
Local Projects	501	474	465	382	400	412

SVI Year Type	WET	WET	ABOVE NORMAL	DRY	DRY	ABOVE NORMA L
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What's in the news

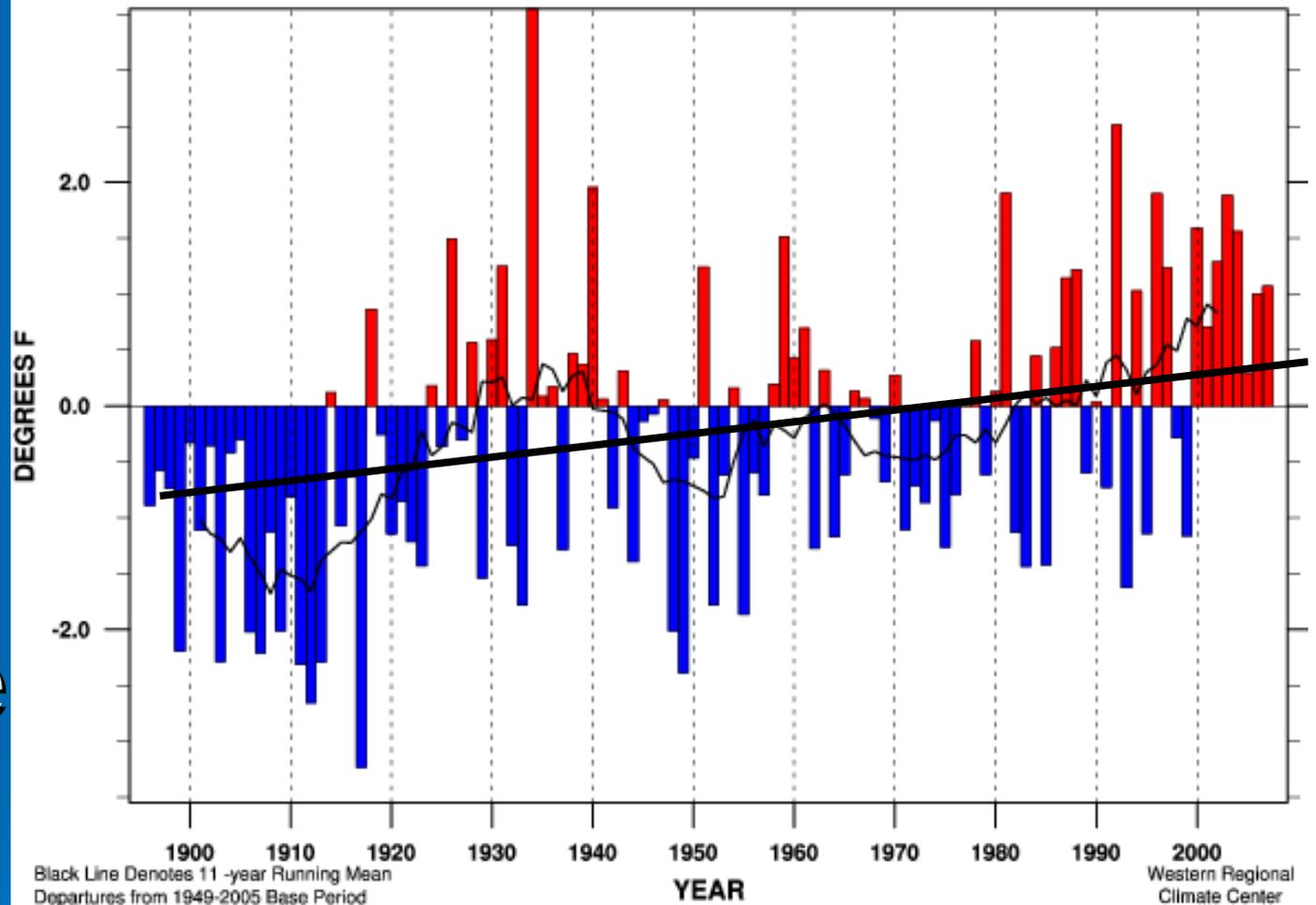
- Fish Springs Ranch is operational March 2008
- Water and Energy inextricably interrelated



- Drought watch, conservation, recycled water
- Western Juniper removal and impact on water/energy
- Climate change, high spring flows, lake circulation effects

Northeast California Annual Mean Temperature Trend (WRCC)

Northeast Region Mean Temperature Departure Oct-Sep



Linear Trend 1895-present	+ 1.54 ± 0.64 °F/100yr	
Linear Trend 1949-present	+ 2.40 ± 1.58 °F/100yr	
Linear Trend 1975-present	+ 4.43 ± 4.27 °F/100yr	
Warmest Year	50.1°F (+ 3.5°F) in 1934	MEAN 46.5 °F
Coldest Year	43.3°F (- 3.2°F) in 1917	STDEV 1.08 °F
Oct-Sep	2007 47.6°F (+ 1.1°F)	RANK 96 of 112

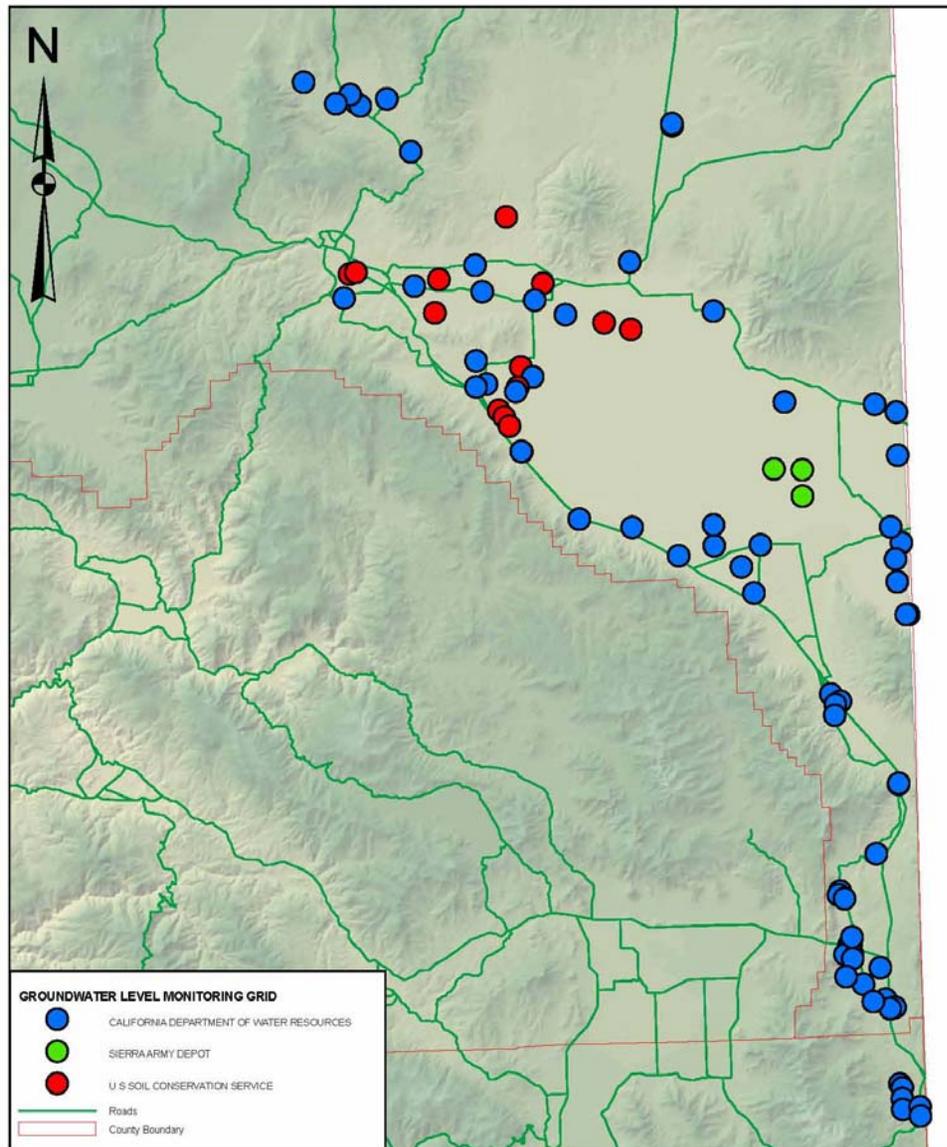
Honey Lake, Long Valley & Surprise Valley

- Water Transfers (Fish Springs Ranch, Silver State Project)
- Clean-up of toxics at Sierra Army Depot
- Water Element for County and City General Plans
- Reno bedroom community development in Long Valley increases groundwater use
- Water Quality & Quantity issues (Nitrate), Janesville

Honey Lake, Long Valley & Surprise Valley

- Groundwater Management is still being developed.
 - GW Management Districts formed in:
Long Valley, Honey Lake, Willow Cr. & Surprise Valley
 - Lassen Co. GWMP initiated in 2007
- Modoc Co. 2008 Capacity Building Grant to further GW management studies.
- Implementing cooperator data collection programs
- Surprise Valley Water Quality issues (thermal water limits to agricultural production) and declining groundwater level issues

Willow Creek Honey Lake & Long Valley Groundwater Level Monitoring Grid



GROUNDWATER LEVEL MONITORING GRID

- CALIFORNIA DEPARTMENT OF WATER RESOURCES
- SIERRA ARMY DEPOT
- U S SOIL CONSERVATION SERVICE
- Roads
- County Boundary

GROUNDWATER LEVEL MONITORING GRID

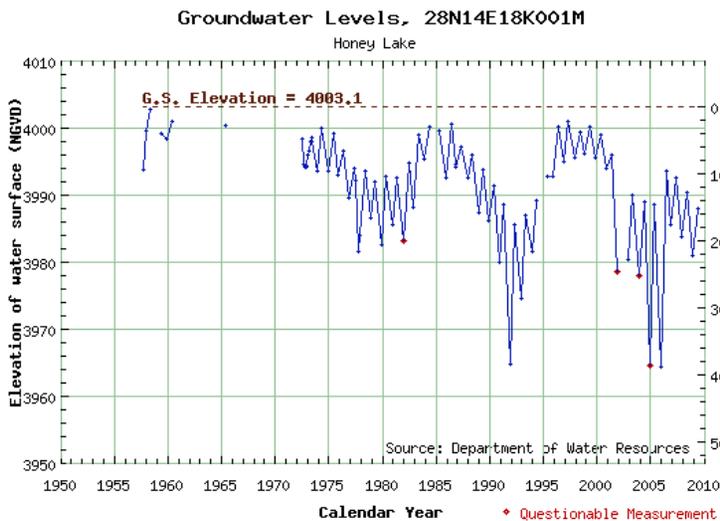
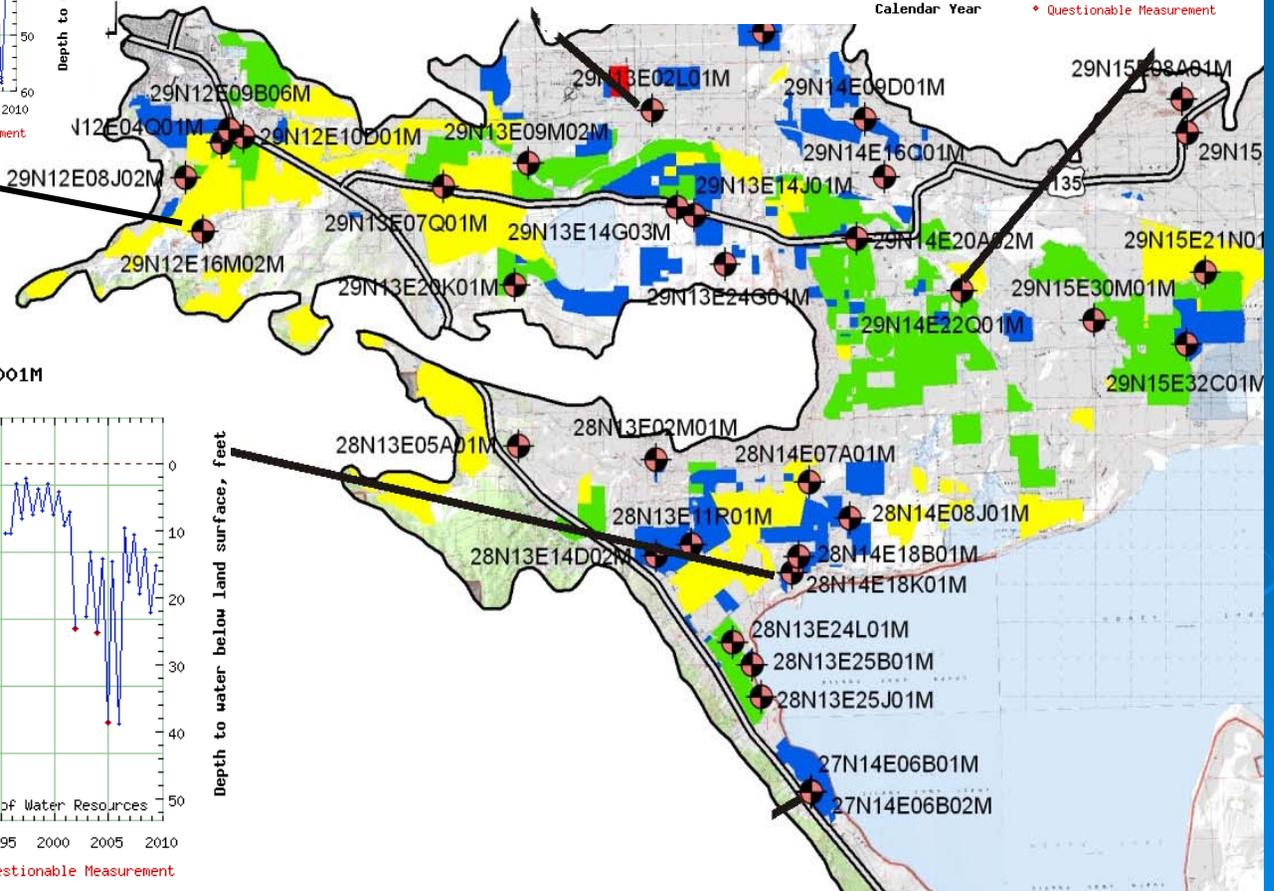
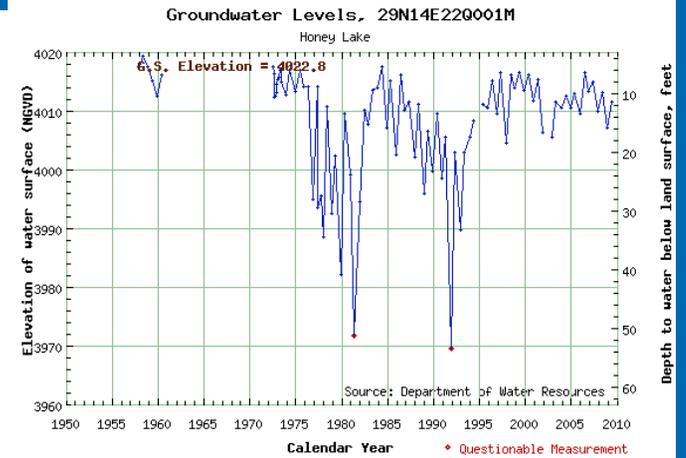
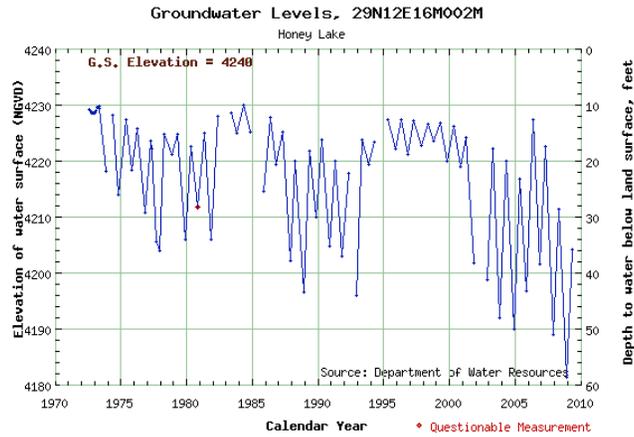
- CALIFORNIA DEPARTMENT OF WATER RESOURCES
- SIERRA ARMY DEPOT
- U S SOIL CONSERVATION SERVICE
- Roads
- County Boundary

DWR-ND
GROUNDWATER LEVEL MONITORING GRID
WILLOW CREEK, HONEY LAKE, LONG VALLEY

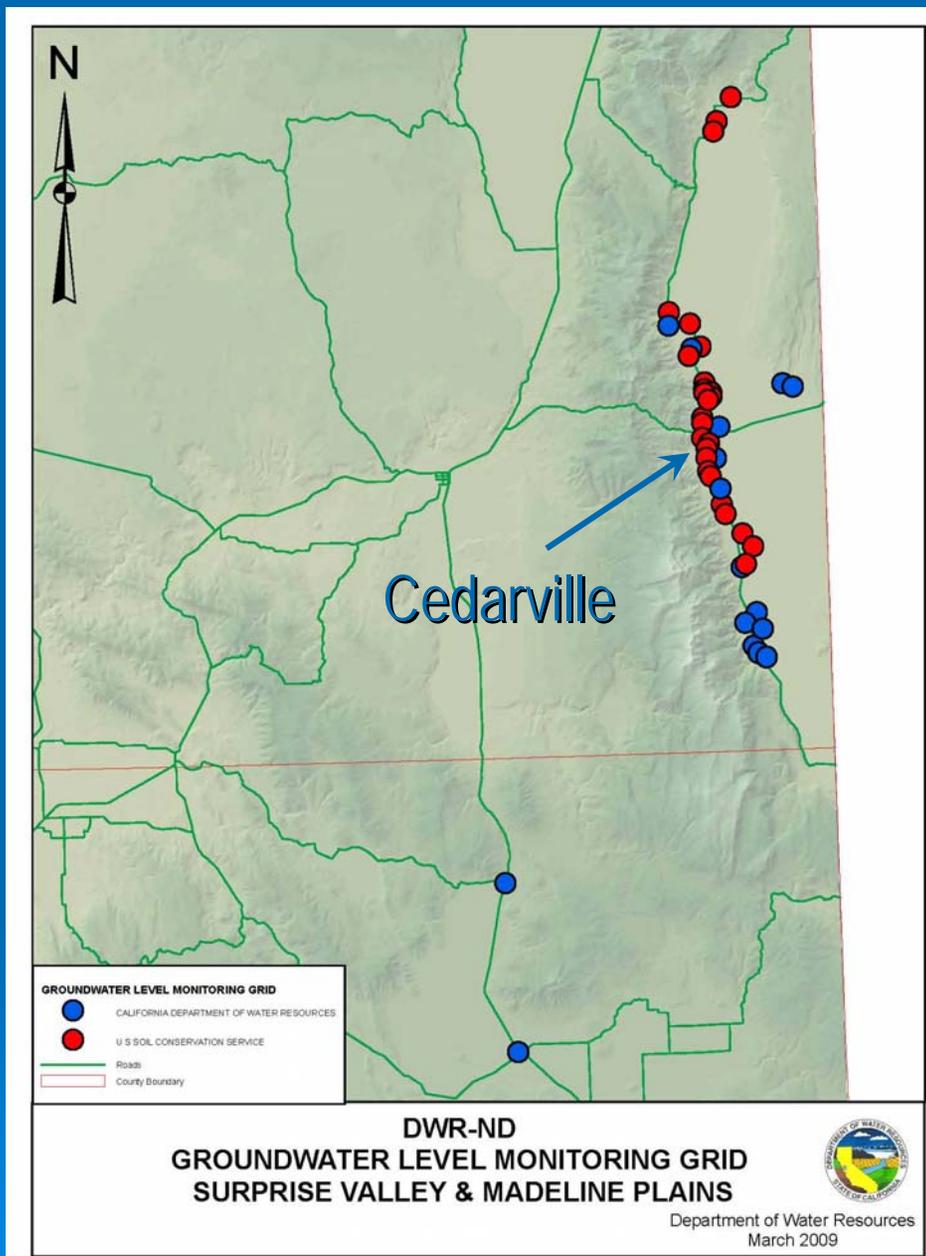


Department of Water Resources
March 2009

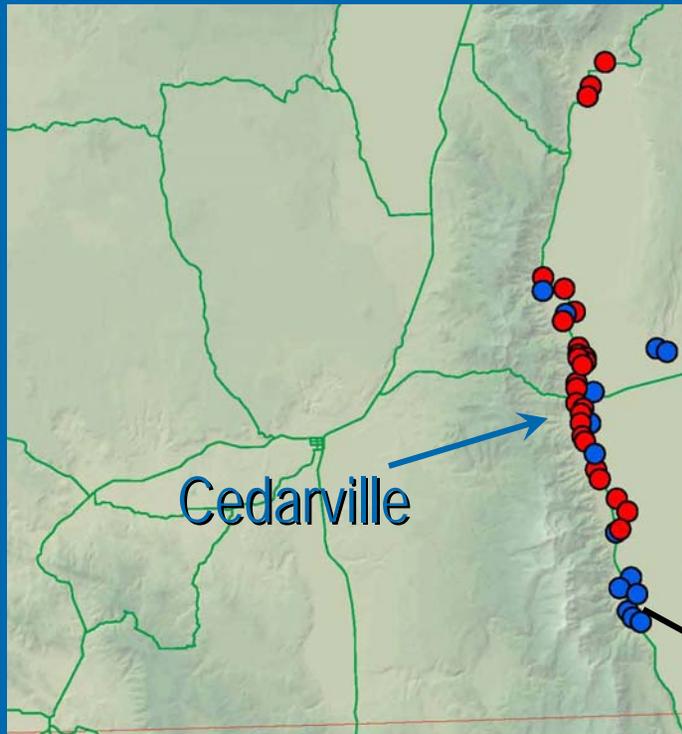
Honey Lake Groundwater Monitoring Grid



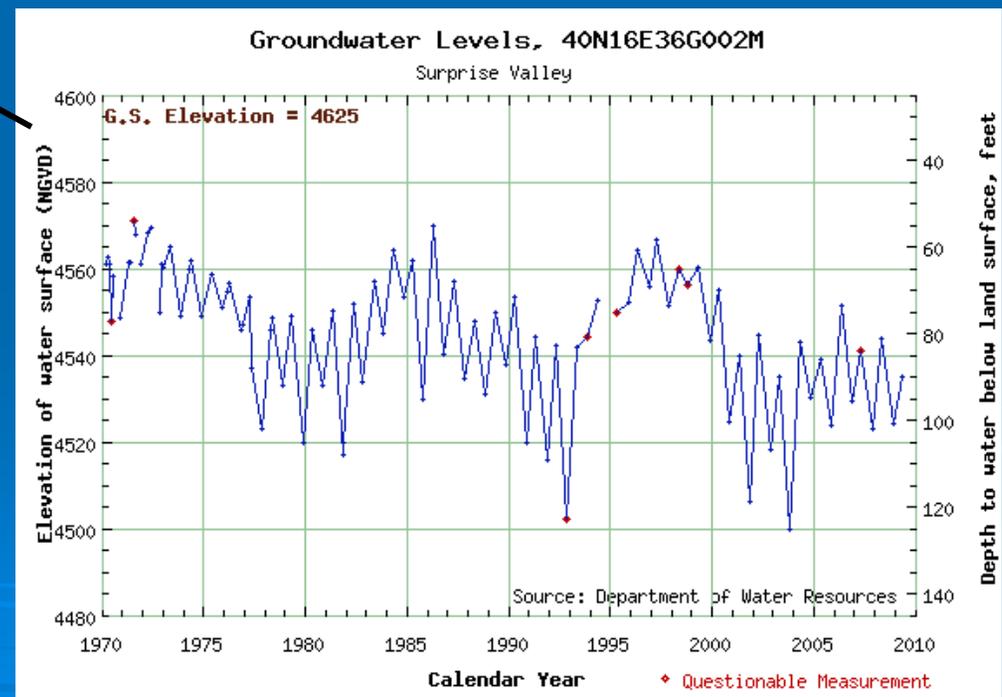
Surprise Valley & Madeline Plains Groundwater Level Monitoring Grid



Surprise Valley Hydrographs



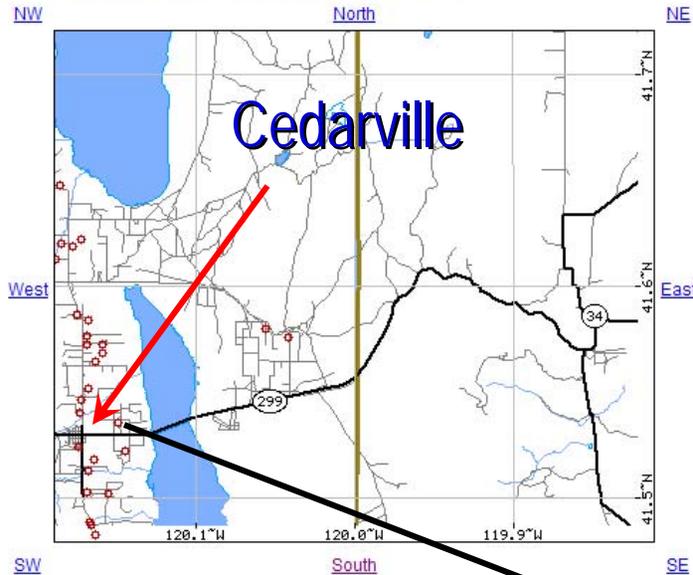
Deep Irrigation Well



Local-Scale Map Interface

Instructions: (Step 4 of 4)

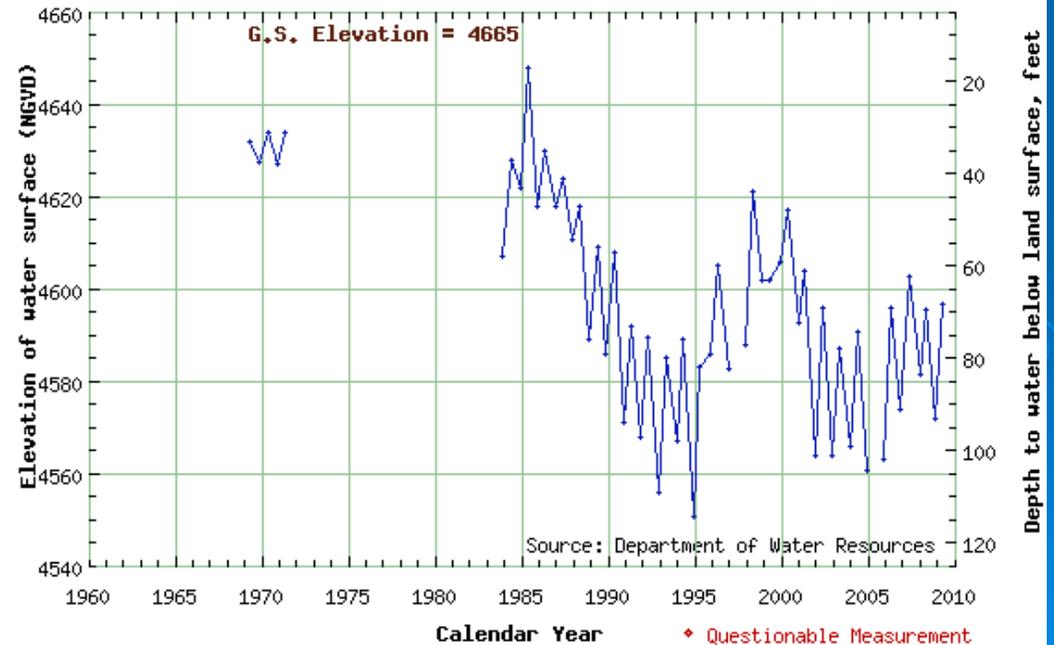
This map provides access to individual water well data. Click on one of the red symbols on the map below to retrieve a hydrograph and tabular listing of the data for that well. If no symbols appear on the map, then no water level data are available for that area. Data may also be obtained using our [text interface](#).



Surprise Valley Hydrographs

Deep Irrigation Well

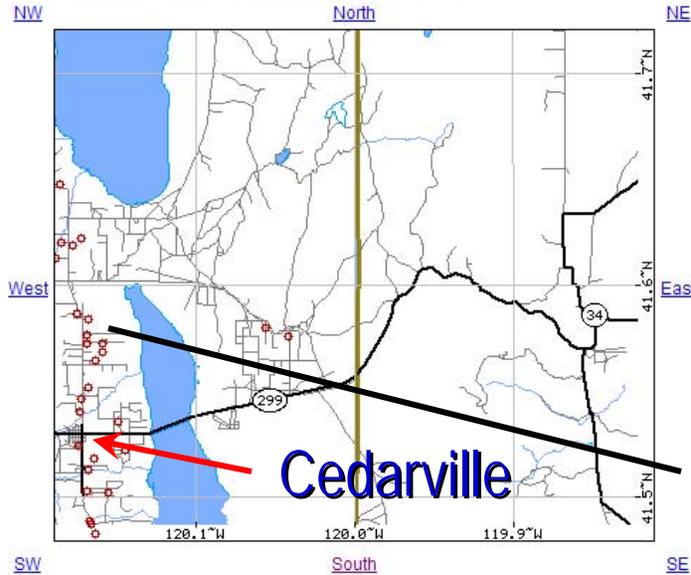
Groundwater Levels, 42N16E05F001M
Surprise Valley



Local-Scale Map Interface

Instructions: (Step 4 of 4)

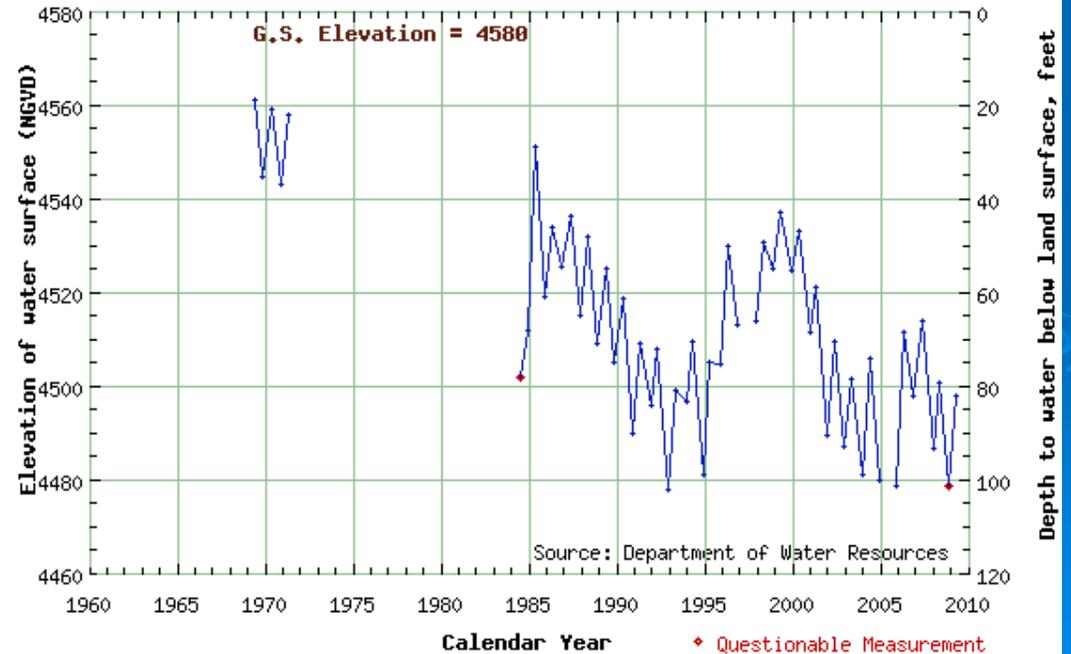
This map provides access to individual water well data. Click on one of the red symbols on the map below to retrieve a hydrograph and tabular listing of the data for that well. If no symbols appear on the map, then no water level data are available for that area. Data may also be obtained using our [text interface](#).

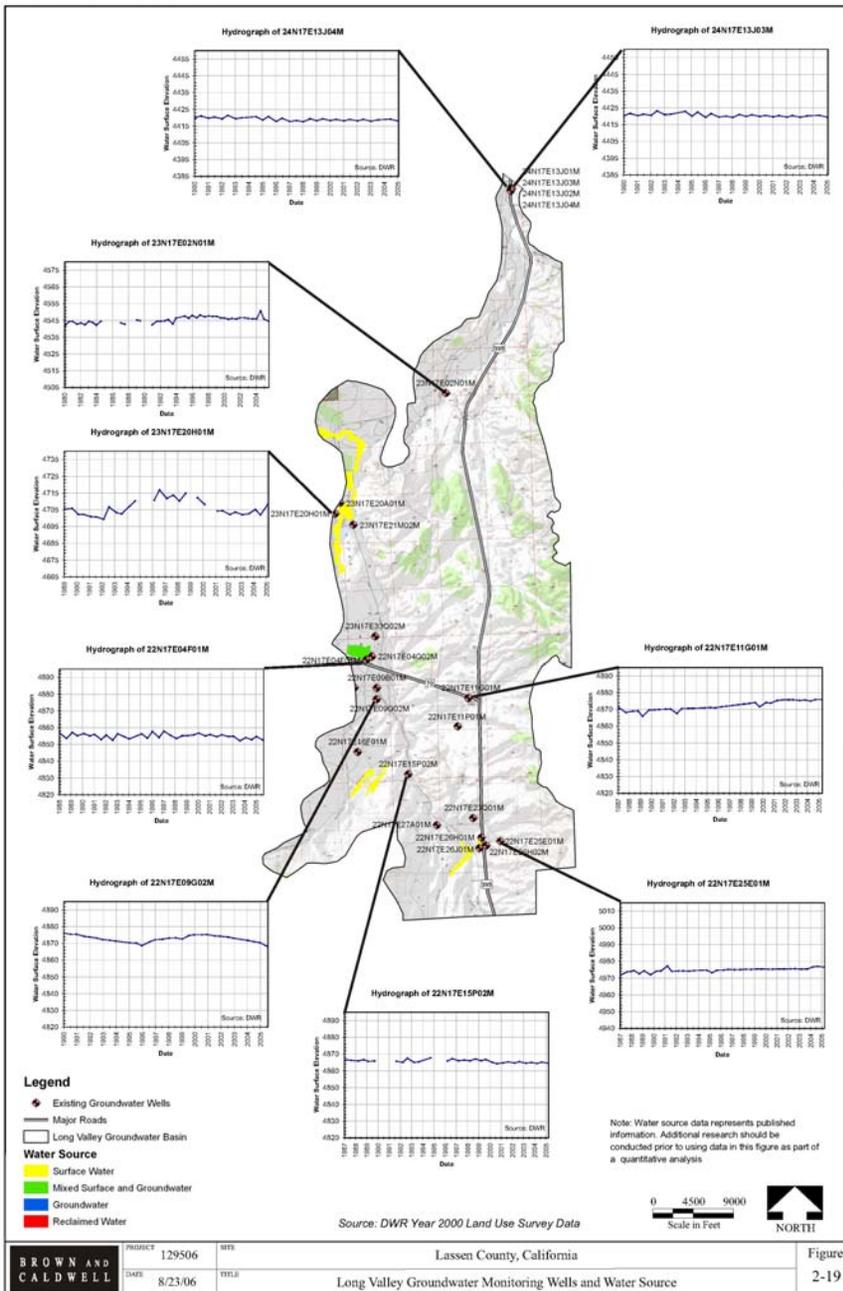


Surprise Valley Hydrographs

Irrigation Well...No Depth

Groundwater Levels, 43N16E28D001M
Surprise Valley





Lassen County Portion of Long Valley Groundwater Monitoring Grid

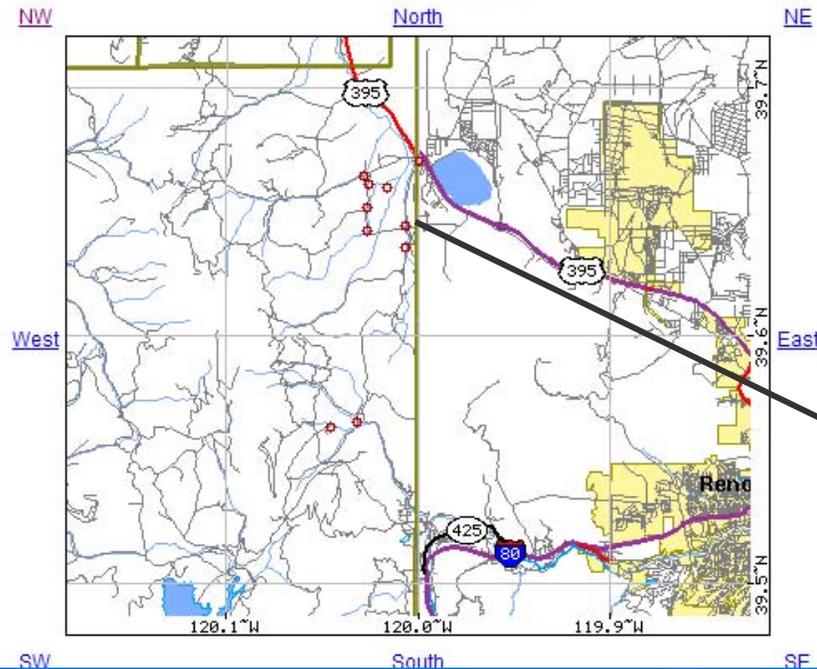
Sierra County Portion of the Long Valley Groundwater Monitoring Grid



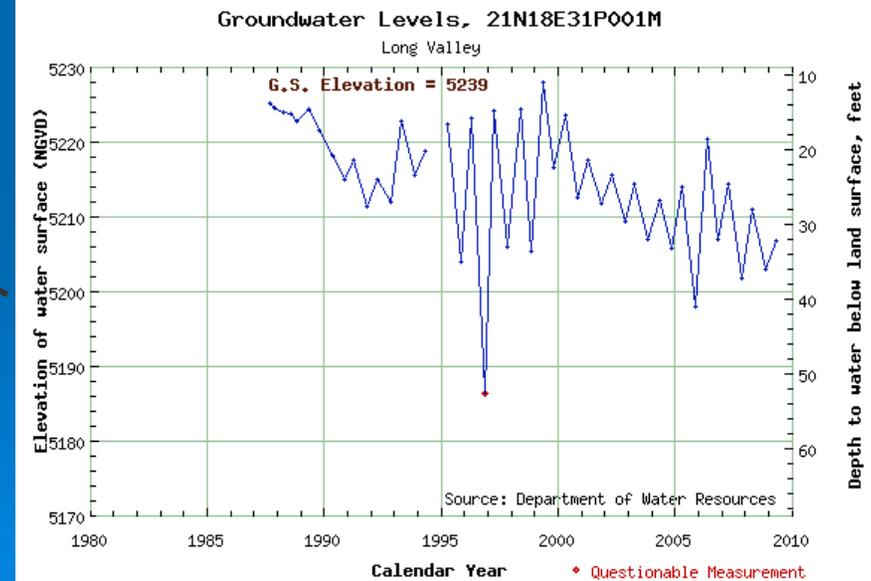
Local-Scale Map Interface

Instructions: (Step 4 of 4)

This map provides access to individual water well data. Click on one of the red symbols on the map below to retrieve a hydrograph and tabular listing of the data for that well. If no symbols appear on the map, then no water level data are available for that area. Data may also be obtained using our [text interface](#).



Irrigation Well



Groundwater Hydrographs and Data

Water Data Library: wdl.water.ca.gov

address <http://wdl.water.ca.gov/>

[California Home](#) [Governor Home](#) [Amber Alert](#)

Welcome to *California*

DWR Home
DPLA Home
Water Data Library Home
Water Quality Data
Groundwater Data
Surface Water Data
Climatology Data
Contacts

DWR Computers Only
WQ Admin
GW Admin



Division of Planning and Local Assistance
 Department of Water Resources



Water Data Library - Home

Welcome to the new and improved Department of Water Resources **Water Data Library**. We have added a new data module, Surface Water, and new functions and reports, making data retrieval more powerful. Please update any bookmarks you may have to our old site. WDL provides data collected by the Division of Planning and Local Assistance and other organizations within the Department.

Select from one of the following data modules:

- [Water Quality Data](#)
- [Groundwater Level Data](#)
- [Surface Water Data](#)
- [Climatology Data \(Prototype\)](#)
- Climatology Data (New Development Site - Coming Soon)

address <http://wdl.water.ca.gov/gw/>

[California Home](#) [Governor Home](#) [Amber Alert](#)

Welcome to *California*

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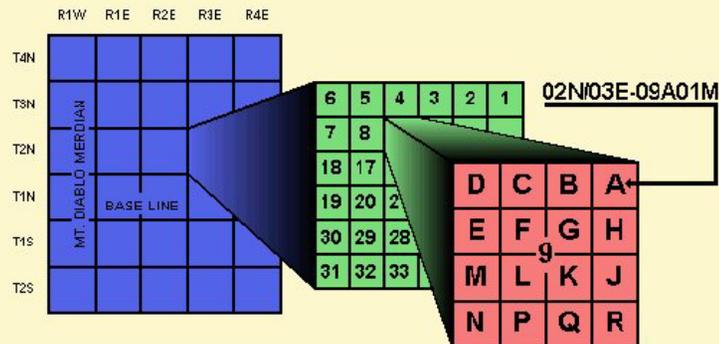
Division of Planning and Local Assistance
 Department of Water Resources



Groundwater Level Data

Select one of the following data retrievals:

- Historical Data by Well**
 - [Map Interface](#)
 - Form Interfaces**
 - [Data by Groundwater Basin](#)
 - [Data by Township](#)
- [Continuous Groundwater Level Data](#)
- [Contour Data by Basin \(form interface\)](#)
- [Seasonal Data by Basin \(form interface\)](#)
- [Special Projects Pages](#)
 - [Deer Creek Project](#)
- Data Download**
 - [Data by Groundwater Basin](#)
 - [Data for an entire Basin](#) (DWR clients only)
 - [Data by DWR District](#) (DWR clients only)
- [WDL Groundwater Administration Functions](#) (DWR clients only - new)



The Truckee River Operating Agreement:

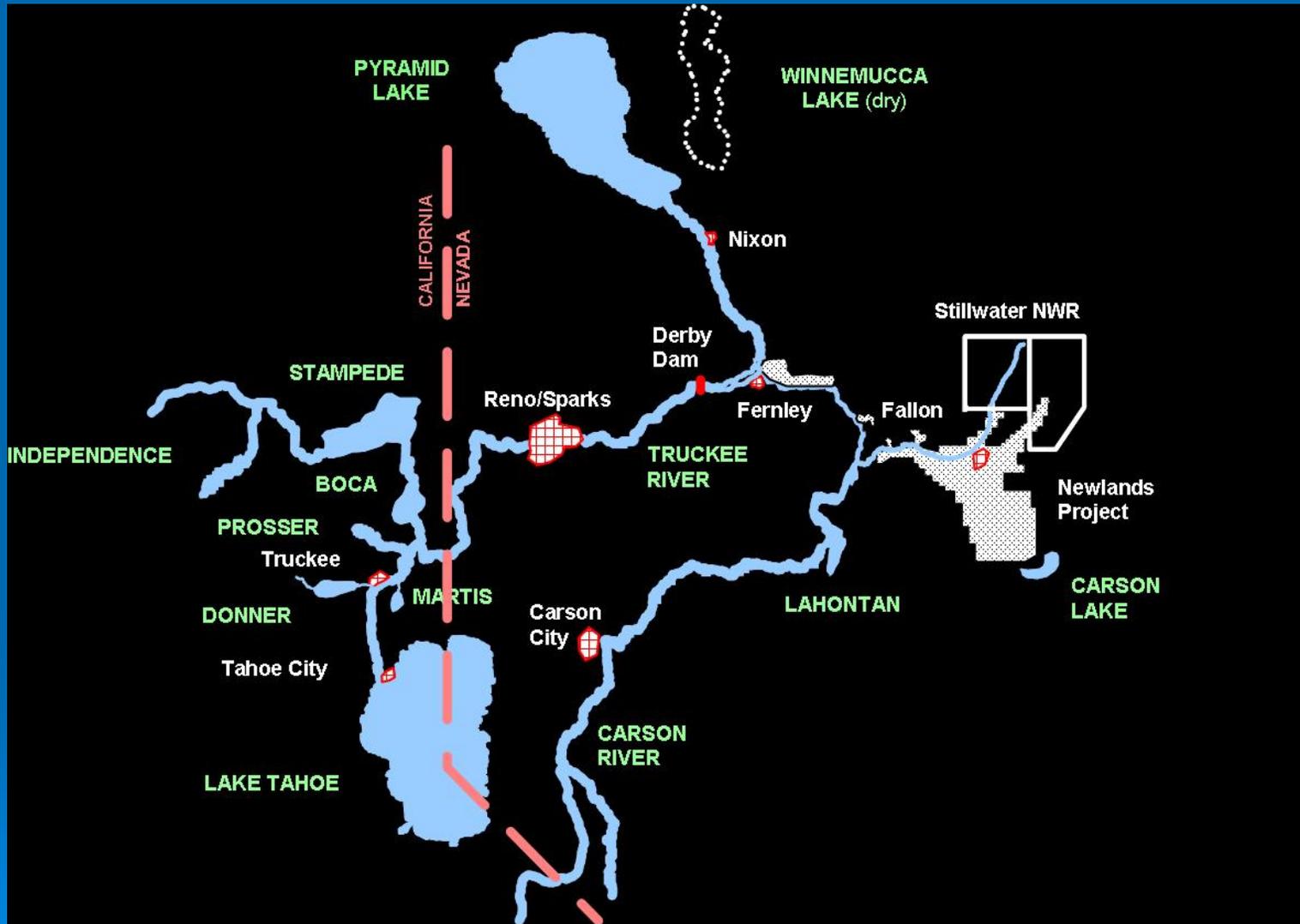
A Comprehensive Settlement of a
Hundred Years of Disputes



Introduction

- Background and History
- Truckee River decrees
- Issues
- Settlement Act
- TROA

TRUCKEE RIVER BASIN

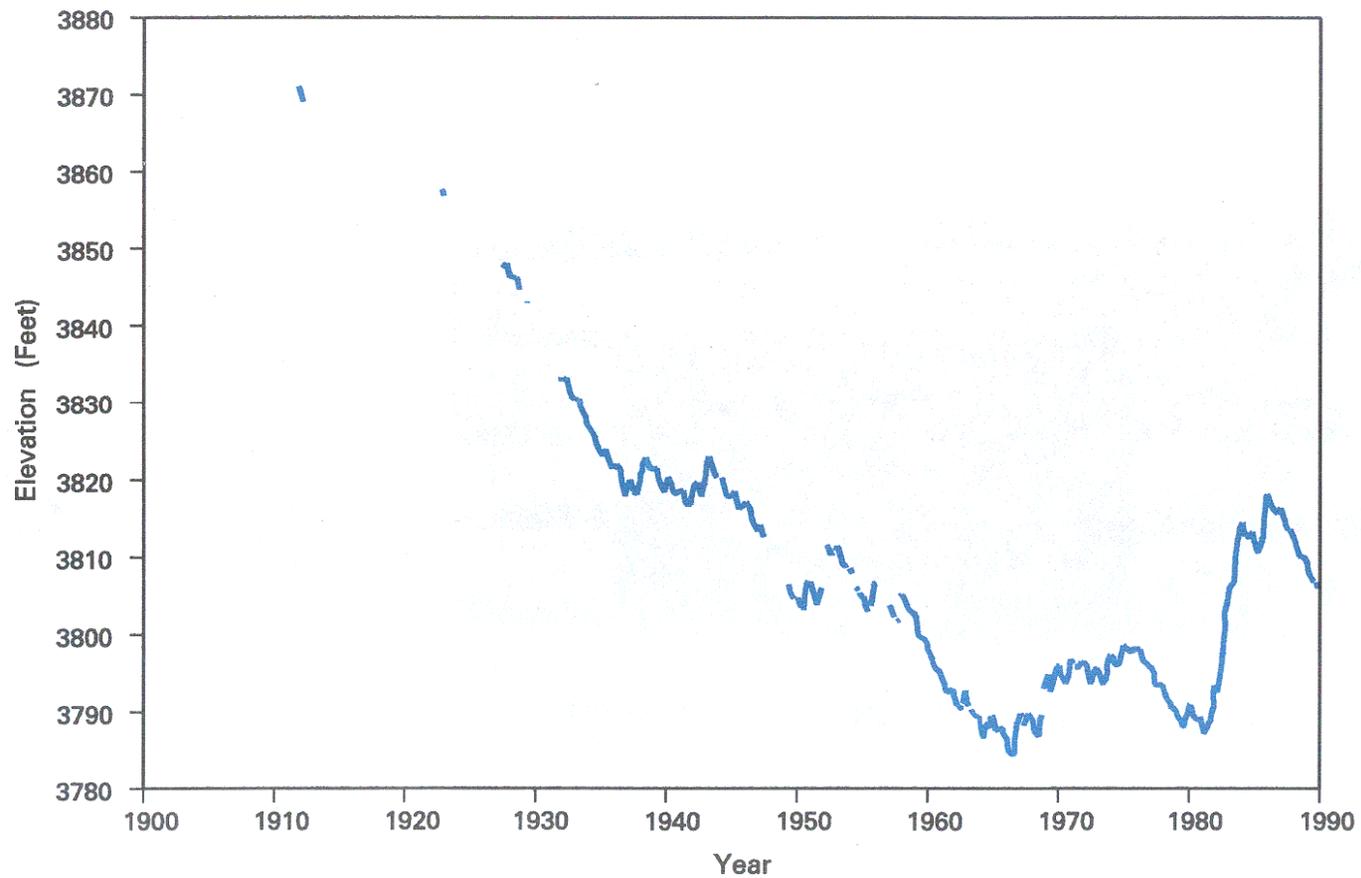


A Century of Disputes

- Tahoe Dam Controversies
- Newlands Project
- *Truckee General Electric and Orr Ditch*
- Tahoe Pumping
- California-Nevada Interstate Compact
- Litigation – Reserved rights and fishery
- Settlement Act and TROA

Pyramid Lake levels

Figure 4
HISTORICAL PYRAMID LAKE LEVELS



Cui-ui



Lahontan cutthroat trout



Flow issues

- Newlands Project diversions adversely affect the Pyramid Lake fishery
- Floriston Rates are relatively inflexible
- Reservoir releases are independent and uncoordinated

Truckee River Operating Agreement

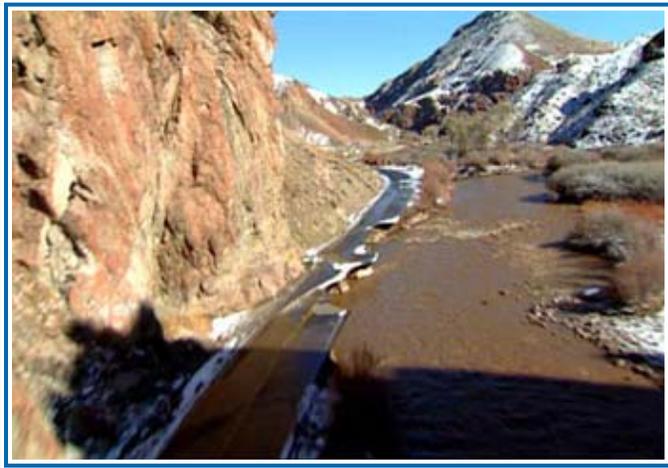
- Parties: US, CA, NV, Tribe, Truckee Meadows Water Authority
- Primary purpose – operate river more effectively
 - Neither Act nor TROA provides additional water
 - TROA relies on water *only* from existing reservoirs
 - TROA does not change existing water rights
- Emphasis on timing of storage, release and use of water

HOW DOES TROA WORK?

- At the Core of TROA is the ability to store additional water upstream, exchange it to other reservoirs, and release it when most needed
- Water will continue to serve existing water rights, including storage in reservoirs as "Project Water"
- Water purchased or not serving existing water rights may also be stored under TROA as "Credit Water" for:
 - M&I
 - Pyramid Lake fishes
 - Water quality
 - Other environmental enhancement
- Storage, exchange and release of water will be coordinated through detailed schedules

Flood Management is Incorporated in the CWP Update 2009

WALKER RIVER 1997



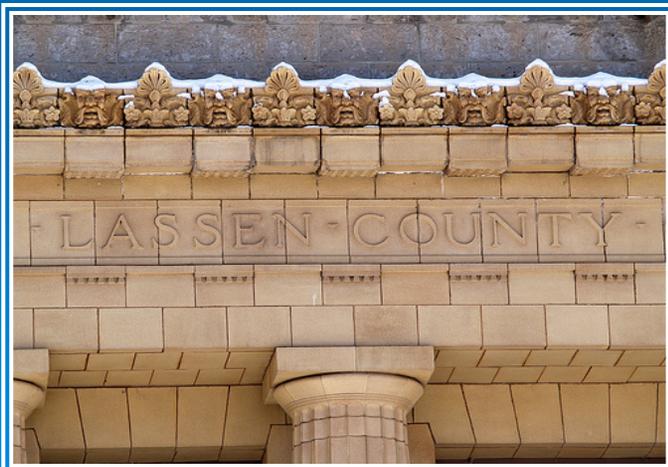
Historic
Floods

MARTIS CREEK DAM



Flood
Hazards

LASSEN COUNTY COURTHOUSE



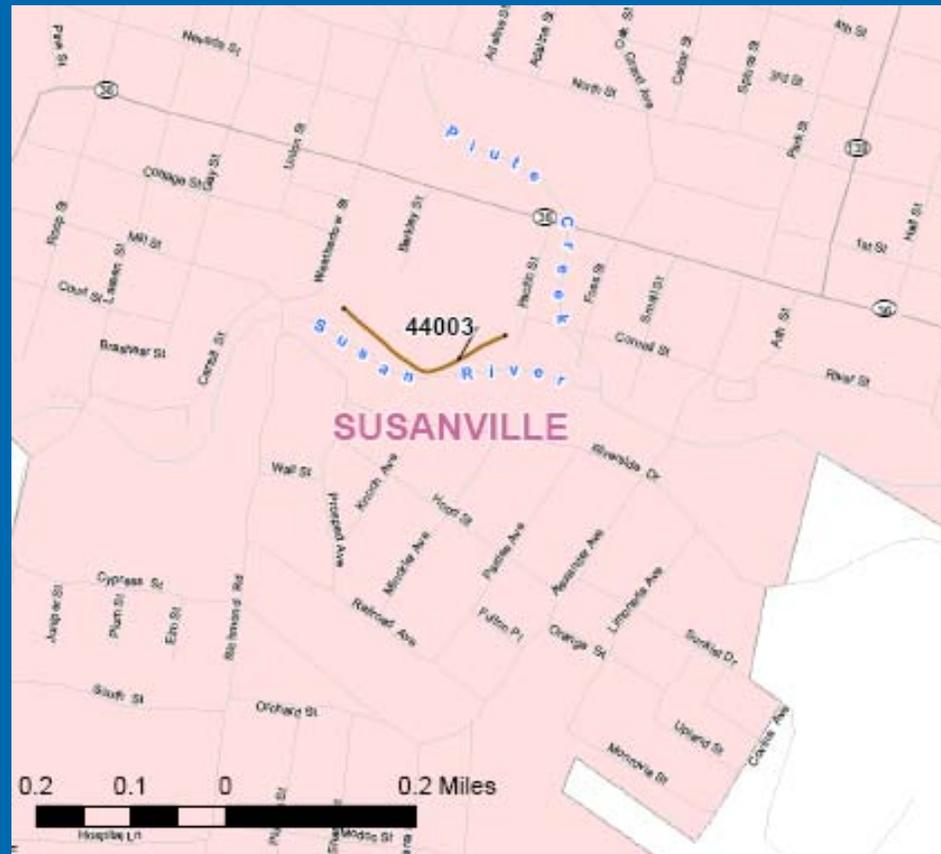
Governance

LAKE TAHOE



Risk
Management

North Lahontan regional water and flood planning & management



Regional Management Center
Outreach Meeting December 2008
Round 2 to be determined

Flood-Related Challenges

➤ New or improved facilities

- Reduce flooding of agricultural and urban areas
- Improve drainage system for roads, homes, and businesses
- Reduce sedimentation reaching Lake Tahoe
- Design flood facilities that do not increase erosion

➤ Planning and Data Acquisition

- Identify and publicize high flood risk areas
- Resolve interstate issues to achieve watershed-scale solutions
- Maintain flood protection as Lake Tahoe population increases

➤ Maintenance of existing facilities

- Resolve seepage problem at Martis Creek Dam

North Lahontan Region IRWM Plans



Future Scenarios/Challenges Responses

- Challenge is taken to be maintaining the status quo in face of possible climate change
 - Flood/fire frequency may increase while surface availability water decreases
 - Response to floods likely to be non-structural
 - Decrease in surface water availability leads to increased groundwater use
 - Increased groundwater use leads to increased energy use

Your Comments or Questions?

- Please contact with any comments of further information:

John Headlee

Water Resources Engineer, No. Central Reg. Ofc.

California Department of Water Resources

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W. Sacramento, CA 95691

(916) 376-9636

jheadlee@water.ca.gov