

# Agenda Items 6 & 7

# California Water Plan Update 2009

## Mountain Counties Regional Report Overview & Outline

### 2009 Regional Workshops

# California **Water Plan** Update **2009**

INTEGRATED WATER MANAGEMENT



Bulletin 160-09 • Department of Water Resources

*Volume*  
REGIONAL REPORTS

# 3

## Public Review Draft

January 2009

# Today's Objectives

- Mountain County Regional Report format and content
- New portfolio information for years 1999, 2002, 2003
- Review concepts to strengthen report

# Report Topics

- Setting
- Regional Water Conditions
- Flood Management
- Relationship with Other Regions
- Challenges
- Looking to the Future

# Setting

- Western slopes of Sierra Nevada Mtns 15,800 sq. mi.
- 14000 ft., peaks 4,500 ft. – 5,500 ft. snowline
- Total Runoff – 17 MAF, Ranges 3 to 39 MAF
- 15 MAF Snowpack Reservoir G.W. upper Feather and fractured rock
- 15 Counties Lassen to Fresno
- Feather, Yuba, Bear, American, Mokelumne, Calaveras, Stanislaus, Tuolumne, Merced, Chowchilla, Fresno, SJR
- Tourism, Timber, Grazing, Water Development
- 582,000 population – 37 per sq. mi. (230 Statewide)
- 7% Growth Rate (2000-2005)
- Major cities Auburn and Grass Valley – 13,000 pop. ea.

# Ecosystems

- Restoration efforts and Habitat Joint Ventures supported by Dept. Conservation, DFG, Sierra Nevada Conservancy (25 million acres)
- Wild and Scenic Rivers - North and Middle forks Feather, S. Fork Yuba, N. Fork American, Lower American, Tuolumne, Merced
- 3,500 native species of vascular plants
- 400 species of terrestrial vertebrates
- Vegetation zones – riparian, meadow, savanna, chaparral, forest and alpine
- 200 plants are rare and 200 terrestrial vertebrates “at risk”
- 40 native fish not secure because of competition with non-native fish
- Anadromous fish decline (3 Listed)

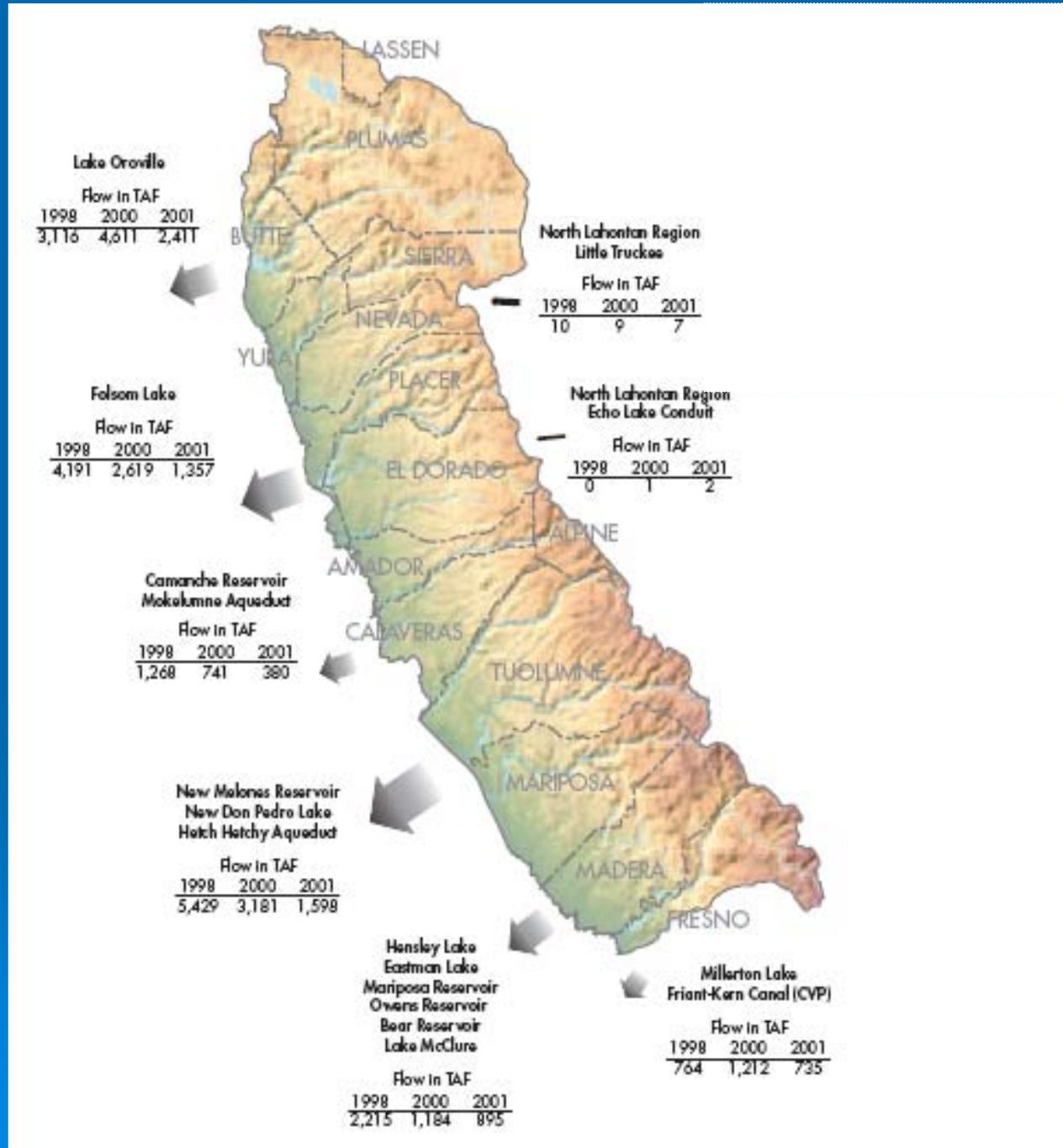
# Land Use Patterns

- 15,800 sq. mi.
- 60% in 8 national forests and 3 national parks
- Urban Land use and Irrigated Ag 1% ea.
- Tourism, ranching, timber harvest, limited mining, agriculture and high-tech industry
- Management of National Forests addressed in Forest Plans
- Sierra Nevada Conservancy Strategic Plan

# Regional Water Conditions

- Hundreds of public and private water supply systems (approx. 500-600 TAF applied)
- Locally developed surface systems account for 70% of supplies
- Remainder is from federal, groundwater, locally developed imports, and reclaimed wastewater
- Groundwater 10% of supply, limited to fractured rock and small alluvial deposits, largest upper Feather R. and Sierra Valley basins
- Dedicated environmental water use – instream SWRCB, FERC, Agreements, Wild and Scenic Designations
- Historic Ditches used and challenged by seepage and fires
- TUD developing the Tuolumne County Ditch System Sustainability Plan – protect and preserve ditches
- Most of the reservoirs operated to provide flood control, hydroelectric power and water supply to downstream interests – PG&E, SFPUC, EBPUD, S.C. Edison, SMUD, CVP, SWP
- 45% of State storage and 55% of State's hydroelectric power capacity

# Regional Water Conditions



# Portfolio Data – Water Supply Regional Water Conditions



# Portfolio Data – Applied Water Use



SVI Year Type

WET

WET

ABOVE  
NORMAL

DRY

DRY

ABOVE  
NORMAL

# Water Quality

- Excellent quality supplies
- Nitrates – Groundwater concern resulting from irrigated agriculture, wastewater systems and septic tanks.
- Pathogens, Metals, Salts and Pharmaceuticals also concerns and addressed in CVRWQCB “Guidelines for Waste Disposal from Land Development”
- Mercury – historically used to amalgamate gold, California Office of Environmental Health Hazard Assessment issued advisories for lower Feather R., lakes on the Bear and Yuba R., Lake Natomas and the lower American, the Cosumnes and Mokelumne due to Mercury levels in fish
- Some arsenic from abandoned gold mines – Legacy copper mining impairment in upper Feather River watershed – copper, cadmium and zinc

# Water Governance and Planning

- Federal & State
  - CVRWQCB: CV-SALTS, Irrigated Lands Regulatory Program)
- MCWRA
- IRWM Groups
  - CABY, MAC, Madera, Tuolumne-Stanislaus, Upper Feather River
- Watershed forums
- Sierra Nevada Conservancy
- Sierra Nevada Alliance
- Local water and wastewater agencies
- Exporting agencies
- City and County governments
- Hydroelectric utilities

# Flood Management Governance

- CCC
- CalEMA
- CaL Fire
- CVFPB
- DWR
- EPA
- FEMA
- Local Agencies, Cities, and Planning Departments
- NRCS
- USACE
- USGS

# Flood Hazards

- Inadequate drainage facilities in Paradise
- Seismic issues limiting Magalia storage
- Sparse information in rural communities
- Squirrel Creek potential flooding in Penn Valley
- Hangtown Creek reduced capacity from vegetation – Placerville
- Cameron Park inadequate floodwater channels
- Alpine County Roads vulnerable to washouts
- Valley Springs vulnerable to inundation by Cogsgrove Creek
- Flooded roads from Concow Creek isolating rural areas
- Fires and subsequent landslides

# National Flood Insurance

- FIRMs for most areas in 1980s and 1990s
- New maps scheduled for 2009
- Sonora and Chester have no maps
- 16 Counties and 15 Cities Participate
- Three Counties are in the NFIP Community Rating System: Placer, Yuba, and Fresno

# Disaster Preparedness, Response and Recovery

## ➤ Accurate Forecasting

- Real Time National Weather Service Stage Forecasts

## ➤ Flood Hazard Zone Delineation

- DWR Awareness Floodplain Mapping Program
  - many counties current - updates by 2012

## ➤ Event Management

# Accomplishments Water Management

- MCWRA newsletter, website and meetings
- IRWM groups engaged in regional solutions and statewide efforts
- Sierra Nevada Conservancy awarded over 100 watershed grants
- Plumas County and partners engaged in multiple meadow restoration projects in the upper Feather R.
- NID completed Strategic and Capital Improvement Plans
- PCWA and USBR completed 100 cfs American R. pumping station
- EID advances energy efficiencies initiative, 2400 AF/yr savings in conservation also utilize WEAP model to evaluate Drought readiness
- PCWA Conservation Programs: annual savings: 3.7 M-gal from low-flush toilets and 2.4 M-gal high-efficiency washing machines
- Groveland & TUD develop mobile water treatment for emergency use
- Folsom Water-Wise Landscape Projects annual saving 50,000 gal
- Calaveras County initiates water element for General Plan update
- Tuolumne UD completed a 2008 strategic Plan and infrastructure master planning

# Accomplishments Flood Management

- Mitigation Plans – foundation for community's long-term strategies reducing disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage.
- 2000 Congress enacted Disaster Mitigation Act – Strategies and Eligibility
- 2004-2006 Plans – completed for Alpine, Amador, Butte, El Dorado, Nevada, Placer and Plumas

# Challenges

- Existing water storage, delivery and treatment infrastructure will require improvements and retrofitting
- Climate Change
- Flood Management
- Planning Alignment and Refinement
- Forest Management
- Rough topography and small community size – special economic challenge
- Significant Interregional Relationships

# Water Plan Alignment and Refinement

- Communications – Grounded in collaboration - State Agencies and Water Leadership – Policy drivers CWP, IRWMP, Delta, Drought, Climate, FloodSAFE, Planning Vehicles, Integration
- Statewide Hydrologic and Hydraulic evaluations, Portfolios, Water PIE, CALSIM, DSM, WEAP, SWAN, FloodSAFE
- Clarity of interregional matters, refinement for plan formulation connecting the benefits of State and local objectives
- Secondary refinement to increase execution success

# Questions & Discussion B



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# Water Supply Challenges

- 1999 Borcali Study current and future needs identification
- Complex water rights concerns and preserve Area of Origin/County of Origin provisions
- Address upstream supply consequences of important initiatives such as SJR restoration, Delta, FERC
- Preserve adequate recharge of limited capacity fractured rock
- Reservoir investigations – Lyons, Alder, and Temperance Flat
- EID – Auburn: Angels Camp Water Recycling up to 10 TAF total
- Water Use Efficiency – NID, PCWA, and City of Lincoln
  - Lincoln investigating how to accommodate growth efficiently

# Water Quality Challenges

- Protect high quality source water
- Protect supplies from pollutants such as nitrates, pathogens, pharmaceuticals, expand capacity of wastewater treatment
- Address pollution from abandoned mines

# Watershed Challenges

- Control erosion from forestry, fires, grazing and land development to avoid impacts
- Address open ditch delivery systems: TUD sustainability plan
- Manage riparian and upland vegetation to increase GW recharge – Upper Feather River IRWMP – control exotic species
- Preserve habitat and in-stream flows for special status species

# Flood Management Challenges

- Provide detailed topographic maps, stream gauging information and updated FIRMs
- Consider risk of flooding for communities being developed in areas lacking flood information
- Control invasive weed species that clog floodways
- Continue to advance efforts for the 2000 Disaster Mitigation Act - strategies and eligibilities
- FloodSAFE coordination

# Policy Initiatives

- FloodSAFE Initiative
- Delta Risk Management Strategy
- Delta Vision
- CALFED Bay Delta Program
- Prop 1E & 84 Grants
- State Water Plan Update



# Policy Initiatives

- Delta Protection Commission
- City & County General Plans
- Climate Change Initiatives
- Biological Opinions
- Governor's Drought Proclamation
- 20x2020 Initiative

# Regulatory Elements

- Constitution
- Government Code
- Public Resources Code
- Water Code
- CEQA, NEPA
- EPA MCL
- SWRWQCB, SWRCB, WATER Law
- CWA 401 & 404
- Rivers and Harbors Act
- DFG – Instream
- Levee Standards, PL 84-99
- FEMA NFIP rules
- ESA CESA
- Wanger Decision
- HCP, Natural Community Conservation Plan, Biological Opinion
- OCAP
- Monterey Agreement Contracts

# Summary

- How can we help ?
- What is useful content ?

# Questions & Discussion C

