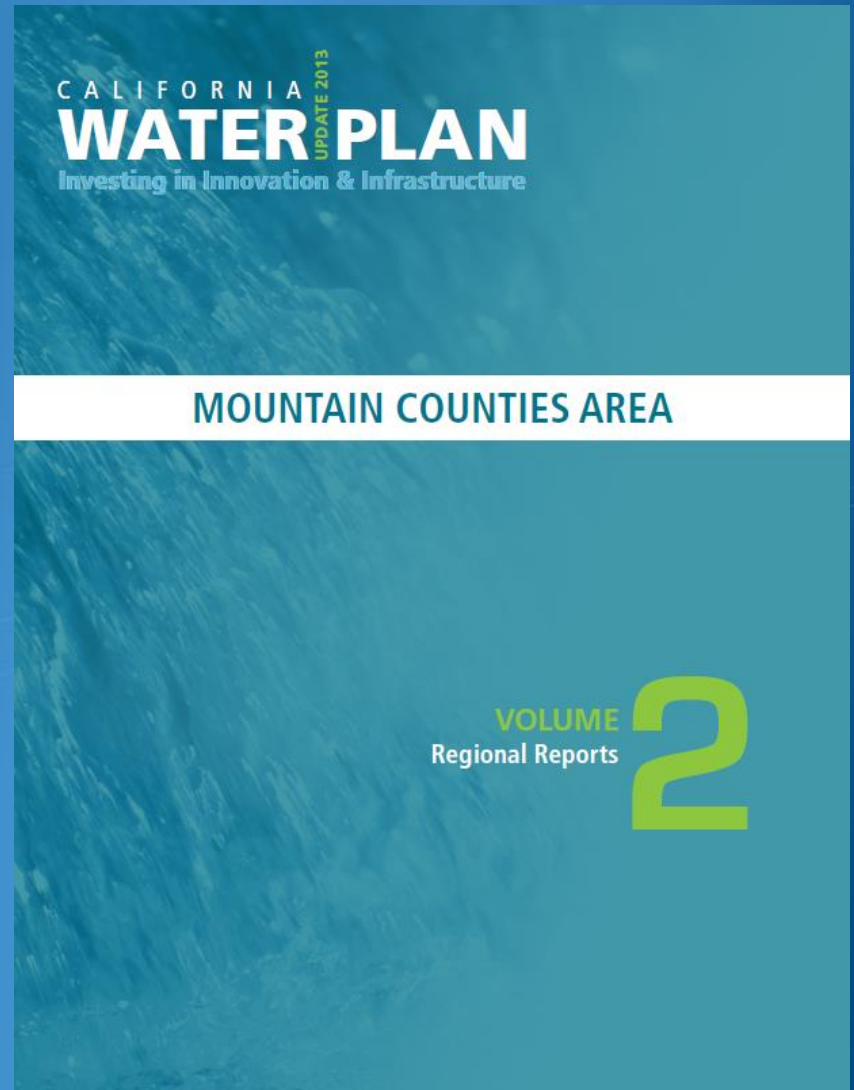


Overview of Mountain Counties Area Regional Report

Prepared for:

**Mountain Counties Water
Resources Association**

February 6, 2015



Regional Reports & Regional Outreach



Mountain Counties Regional Efforts

- All about the people
- Regional Forum Design Team

Design Team Member	Agency
Kerri Timmer	Sierra Nevada Conservancy
Dave Eggerton	El Dorado County Water Agency
John Kingsbury	Mountain Counties Water Resources Agency
Joan Clayburgh	Sierra Nevada Alliance
Kris Kuyper	Sierra Business Council
Liz Mansfield	Sierra Water Work Group
Steven Brink	California Forestry Association
Don Stump	Calaveras County Water District
Kathy Mannion	Rural County Representatives of California

Mountain Counties Regional Efforts

- Core Writing Team

Design Team Member	Agency
Angela Avery	Sierra Nevada Conservancy
Barbara Balen	United States Forest Service (ex-officio MCWRA)
Dave Eggerton	El Dorado County Water Agency
Don Stump	Calaveras County Water District
John Kingsbury	Mountain Counties Water Resources Agency
Kerri Timmer	Sierra Nevada Conservancy
Lowell Jarvis	Mountain Counties Water Resources Agency
Walter Clevenger	Sierra Nevada Conservancy

Mountain Counties Overlay Area

- Update 2005 overlay areas of statewide significance
- MC Area > 15,700 mi.²
- Covers 16 Counties
- Covering part of Sacramento & San Joaquin hydrologic regions
- 11 MAF Average Annual Water Supply in Snowpack
- 18 MAF Reservoir Storage
- Interregional Planning Efforts

Figure MC-1 Mountain Counties Overlay Area Boundary



Mountain Counties Overlay Area

STATEWIDE SIGNIFICANCE

- > 40% of CA's developed water supply
- More hydroelectric generation facilities than any other region in CA
- Agriculture is an economic driver for CA's economy
- Recreation & tourism help communities thrive
- Stored water dedicated flow releases meet beneficial uses & provide storage to reduce flood flows



Photo courtesy of Graham Morey: Whitewater Rafting on the North Yuba River.
Tributary Whitewater Tours.

Mountain Counties Overlay Area

ECONOMIC & ENVIRONMENTAL DRIVERS

- Concentration of public & private forests
- Watershed headwaters & natural & recreational resources
- Socioeconomic disparities



Photo courtesy of Jacobs Associates: Hetch Hetchy Reservoir.
http://www.jacobssf.com/industry_overview/view/268/

Mountain Counties Overlay Area

ECONOMIC & ENVIRONMENTAL DRIVERS

- Anticipated climate change impacts
- Communities of place vs. communities of interest
- Land use issues
 - Rural populations
 - Management of public lands
 - Coordination with tribal councils



Photo courtesy of UC Davis Center for Watershed Sciences: UCD scientist in Sierra meadows.
<https://watershed.ucdavis.edu/news/2012/12/03/sierra-meadows-and-climate-change>

Challenges

- Large damaging fires threaten air & water quality, affect hydropower generation, the environment, recreation, & tourism
- Healthy forests & headwaters
- Area of origin protections



Photo courtesy of Matthew Henderson: King Fire at Stumpy Meadows.
<https://www.facebook.com/onfirephotos>



Photo courtesy of YNP: Yosemite National Park.
<http://www.yosemitepark.com>

Challenges

- Climate change & alterations to the hydrologic cycle
 - Reduced snow accumulation & higher snow elevations
 - Change in runoff timing
 - More frequent rain-on-snow events & higher peak flows
 - Lower summer stream flows & groundwater levels
 - Increased frequency of catastrophic wildland fires
- Legacy mining
- Aging Infrastructure
- Fractured rock formations



Photo courtesy of UC Merced: UCM Roger Bales works on a snow sensor tower.
<http://blogs.kqed.org/science/audio/why-more-trees-in-the-sierra-mean-less-water-for-california/>

Recommendations

- Elevate stewardship & health of the Sierra Nevada watersheds & sustainable watershed management
- Invest in the watershed & headwaters & protecting resilient forests
- Develop & implement sustainable resource management strategies
- Harness potential for alternative energy production
- Implement pilot projects to further prove investment needs & benefits
- Establish & maintain effective collaborative partnerships

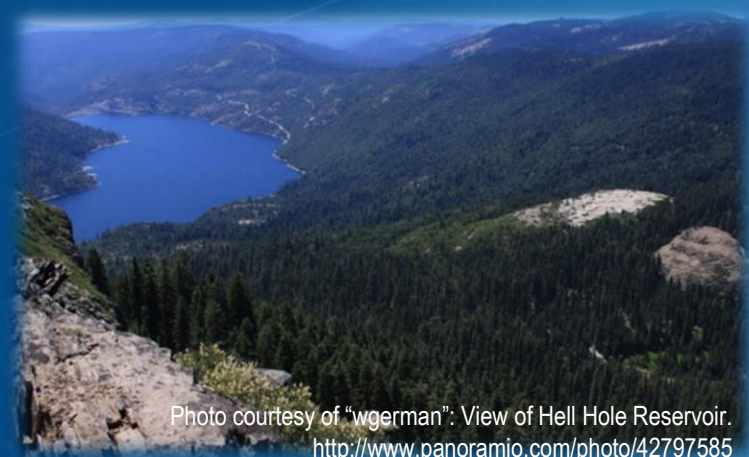
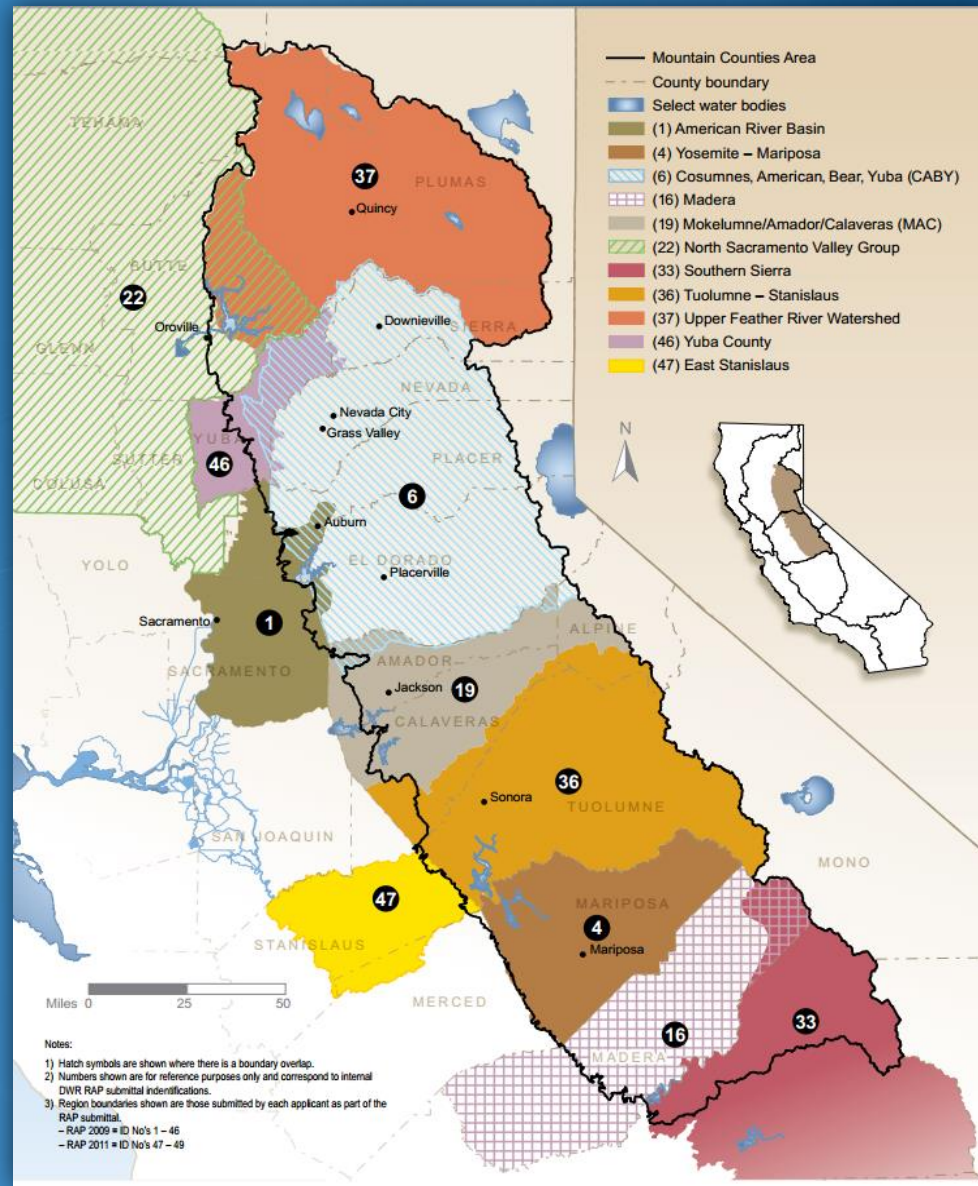


Photo courtesy of "wgerman": View of Hell Hole Reservoir.
<http://www.panoramio.com/photo/42797585>

Regional Needs and Opportunities

- Primary need for decision-makers & stakeholders to better understand the region
 - Unique roles & ecosystem services
 - Current conditions
- Successful long-term management strategies developed & implemented through multi-stakeholder collaborative groups



Advancing IWM in the Mountain Counties

- Established framework & roadmap
- Continue multi-stakeholder collaborative efforts



Integrated Water Management

System flexibility and resiliency
Advocacy from implementers and financiers
Delivery of benefits using fewer resources

Government Agency Alignment

Clarification of state roles
Reduction in implementation time and costs
Efficient achievement of multiple objectives

Investment in Innovation and Infrastructure

Stable and strategic funding
Priority-driven funding decisions
Equitable and innovative finance strategies

Increase regional self-reliance and integrated water management



Photo courtesy of Heather Loewenhardt.

<http://www.betterphoto.com/gallery/big.asp?photoID=11803691&catID=&style=&rowNumber=2&memberID=251445>