SOUTHERN NEVADA WATER AUTHORITY®

Southern Nevada and the Colorado River

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Southern Nevada Water Authority

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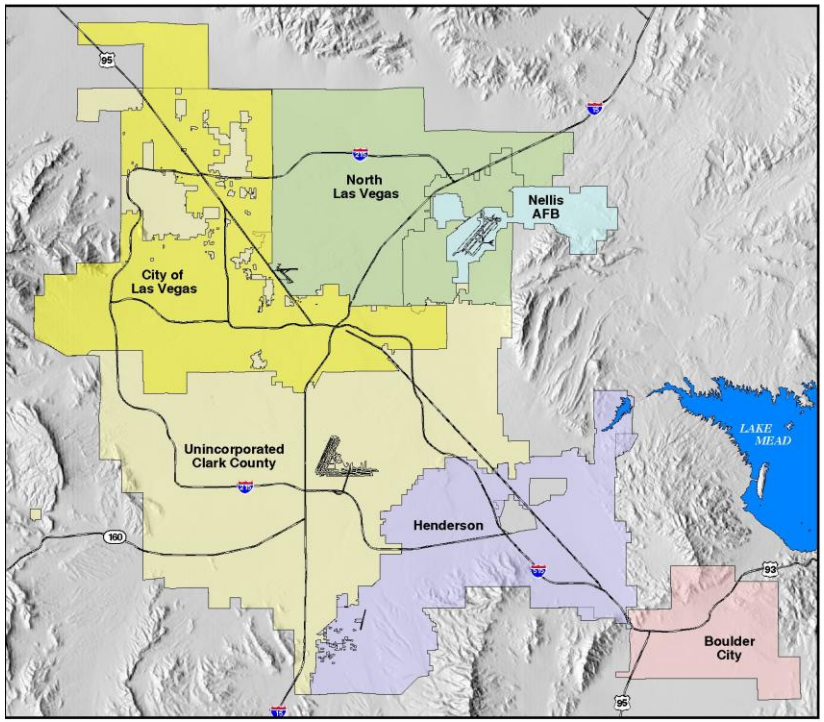
Southern Nevada Water Authority

The SNWA is a cooperative agency formed in 1991.

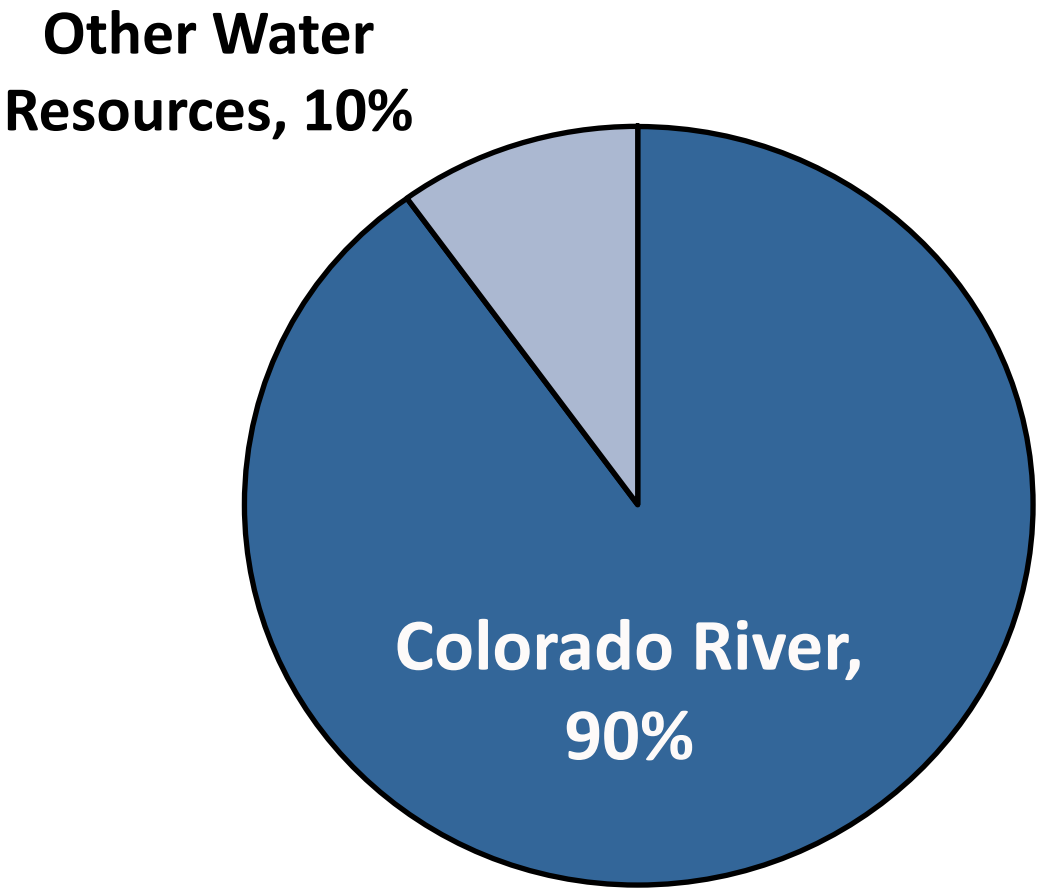
SNWA's mission is to manage the region's water resources and develop solutions that will ensure adequate future water supplies for the Las Vegas Valley.



Member Agencies

- Big Bend Water District
- City of Boulder City
- City of Henderson
- City of Las Vegas
- City of North Las Vegas
- Clark County Water Reclamation District
- Las Vegas Valley Water District

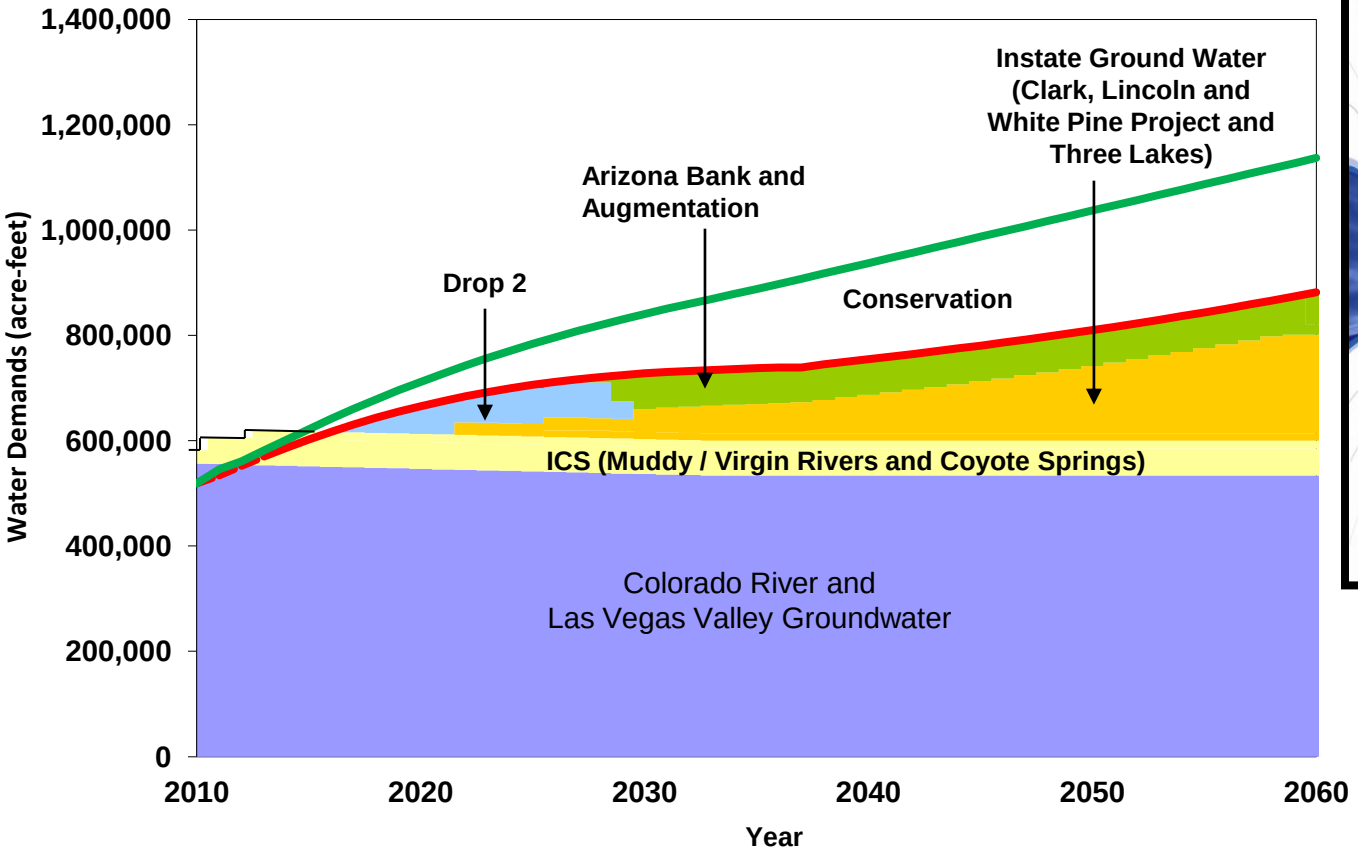
Southern Nevada's Water Resources

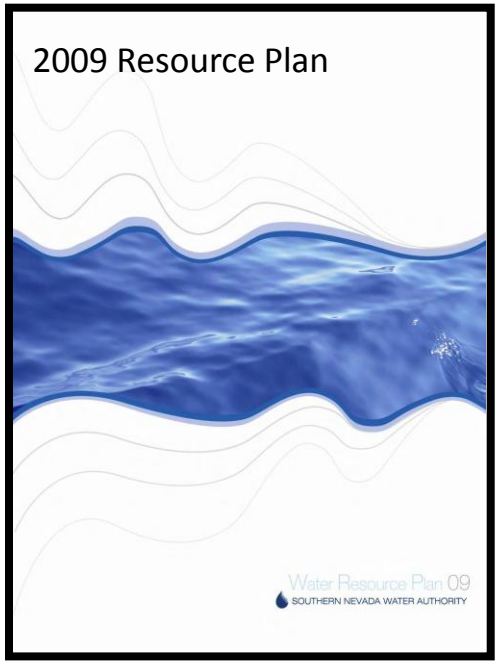


SNWA Perspective

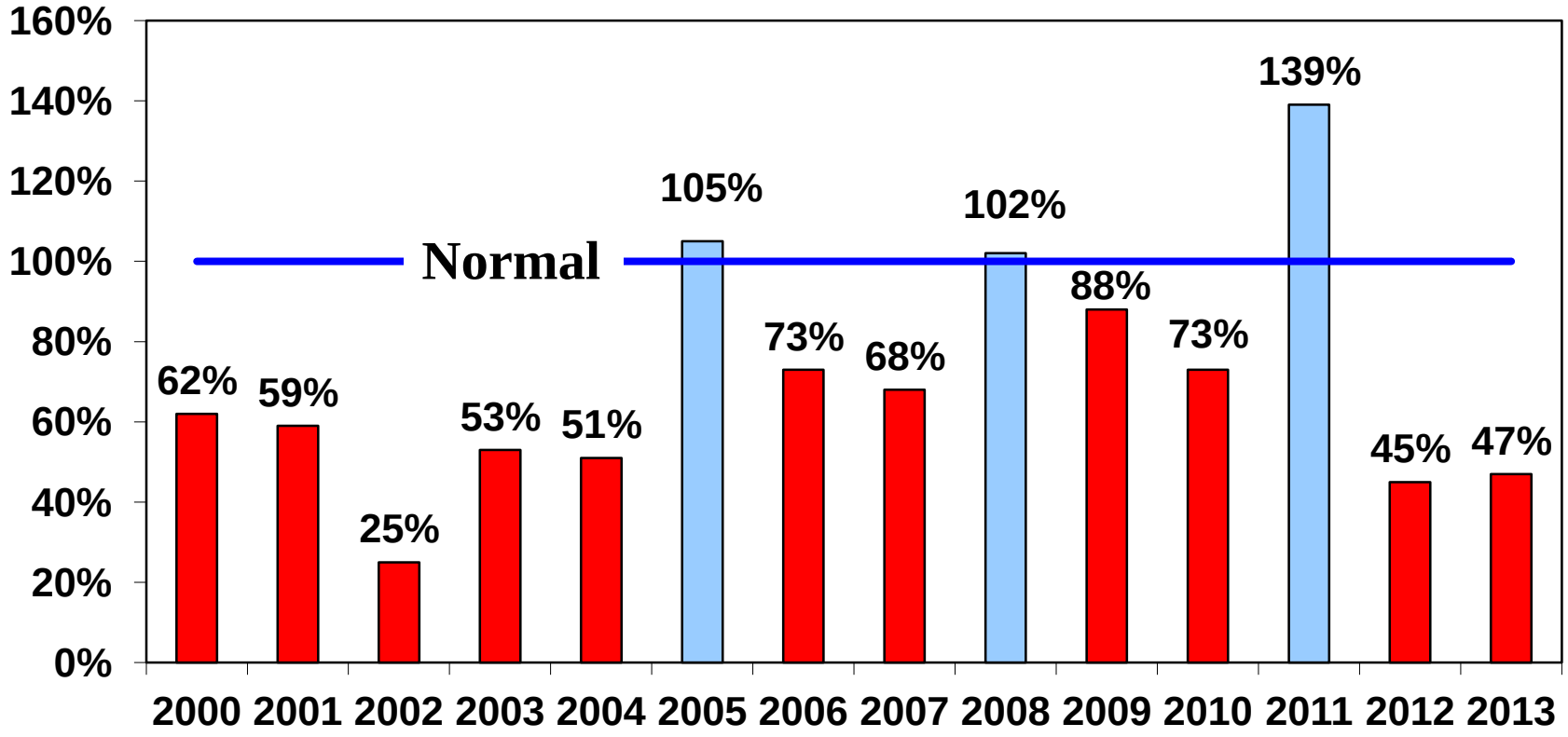
- **Water Resources**
- **Operations**
- **Infrastructure**

SNWA Water Resource Plan



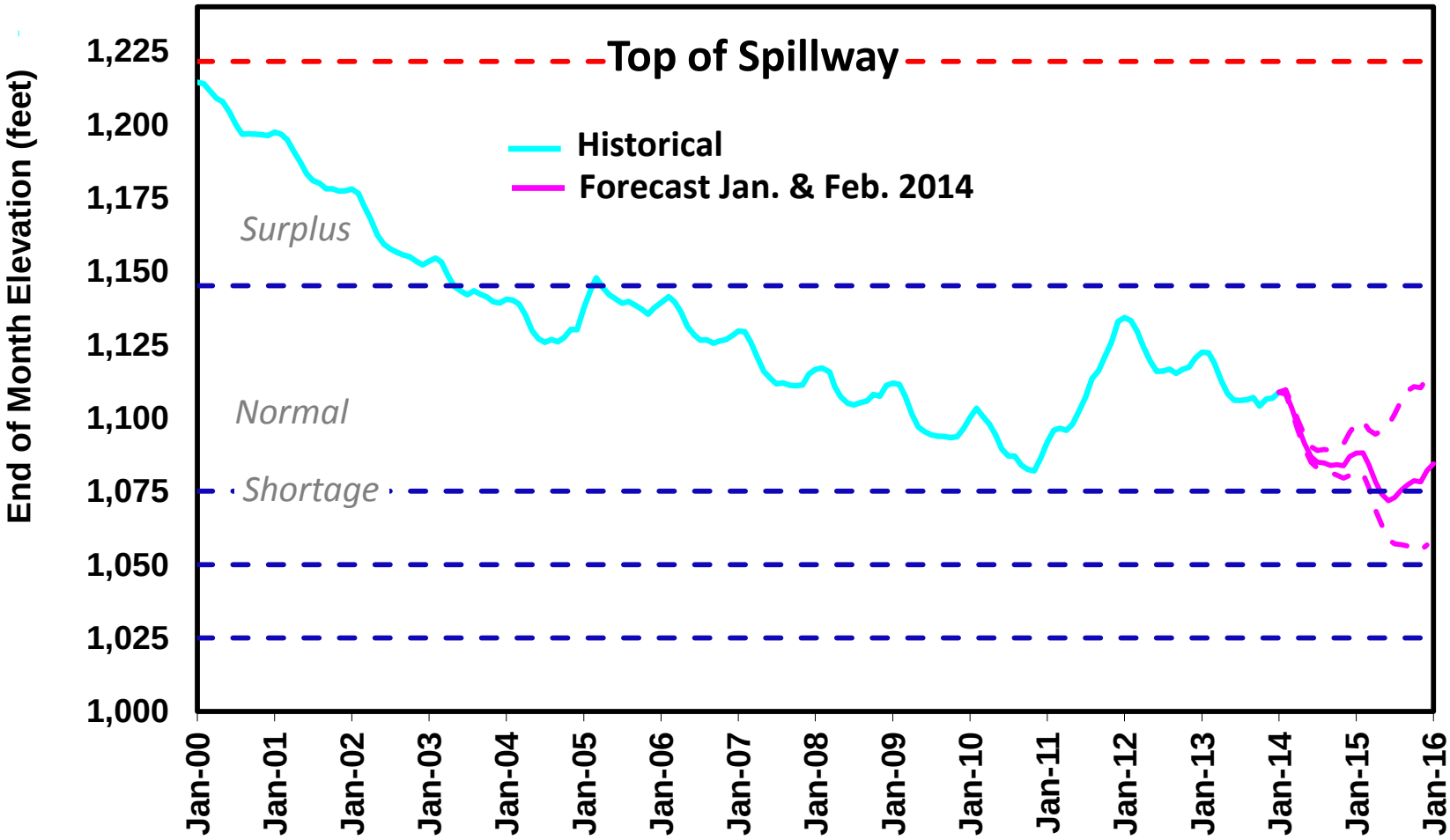


Monitoring Drought - Historical Lake Powell Annual Inflows



Historical 14-Year Average Inflow: 71% of normal

Monitoring Projected Lake Mead Elevation

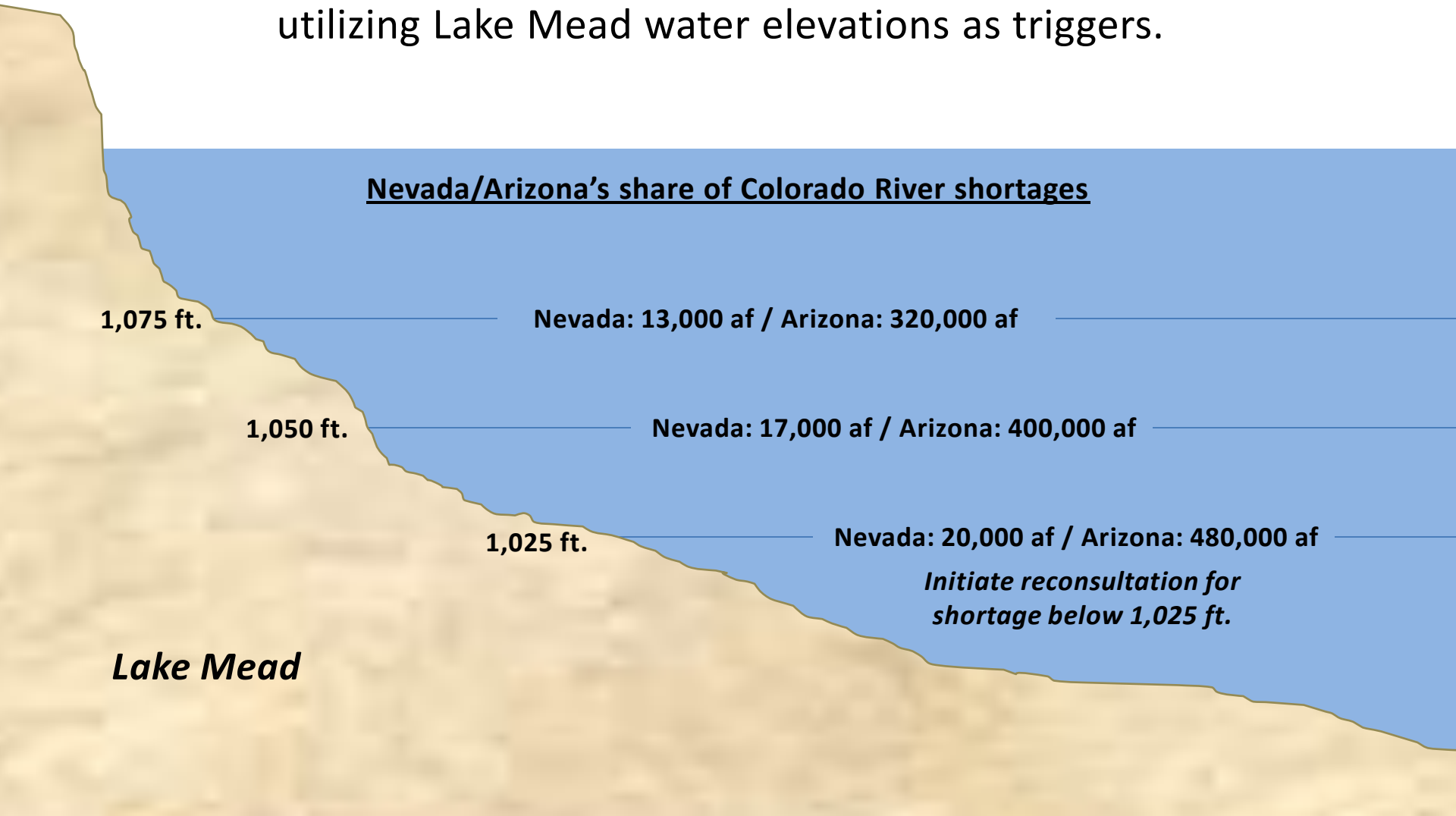


WY2014 release - 7.48 maf; WY2015 projected release: - 9.0 maf

Source: Bureau of Reclamation, January and February 2014 24-Month Study.

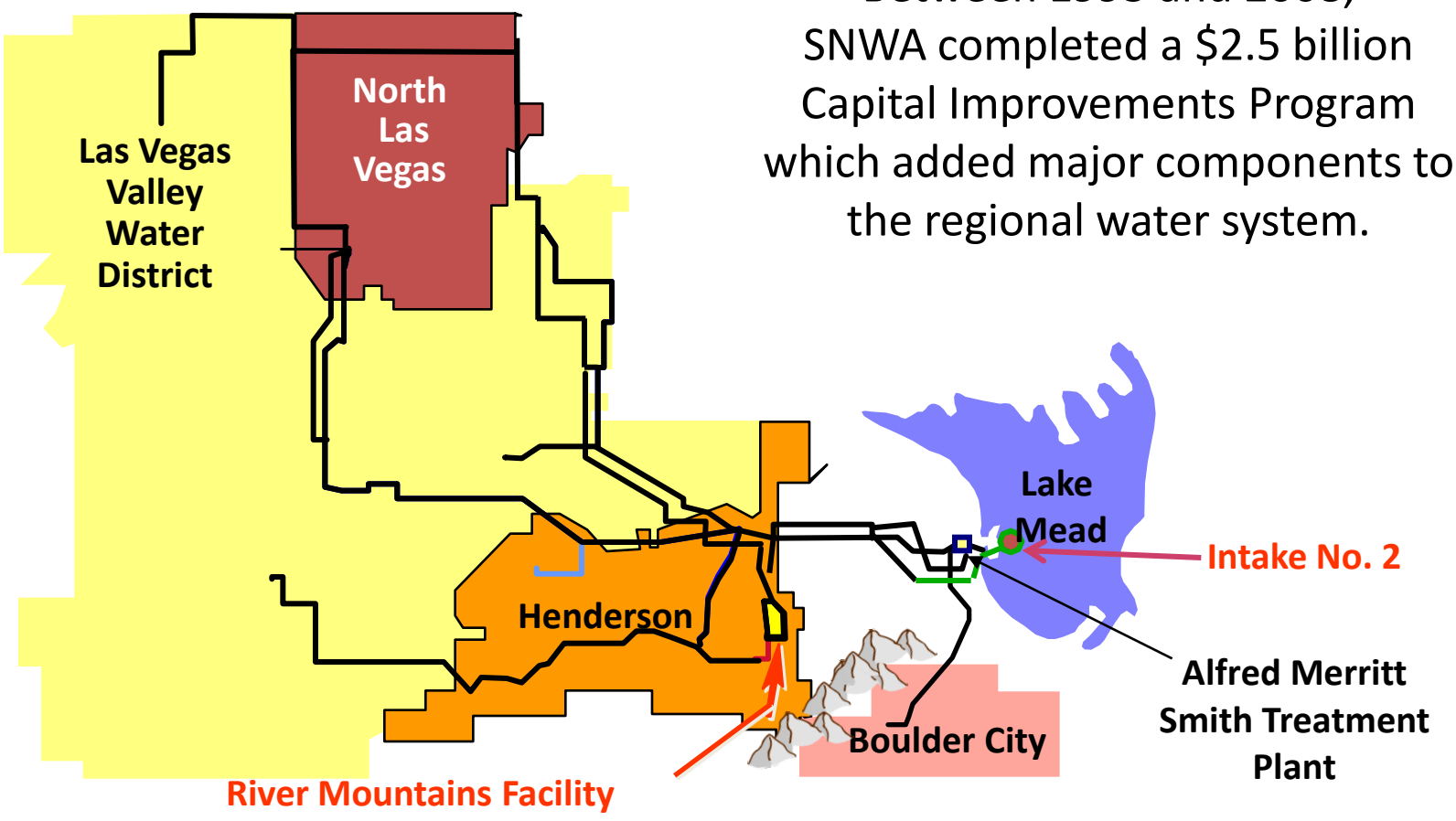
Colorado River Shortage

The Basin States developed a framework to manage shortages, utilizing Lake Mead water elevations as triggers.

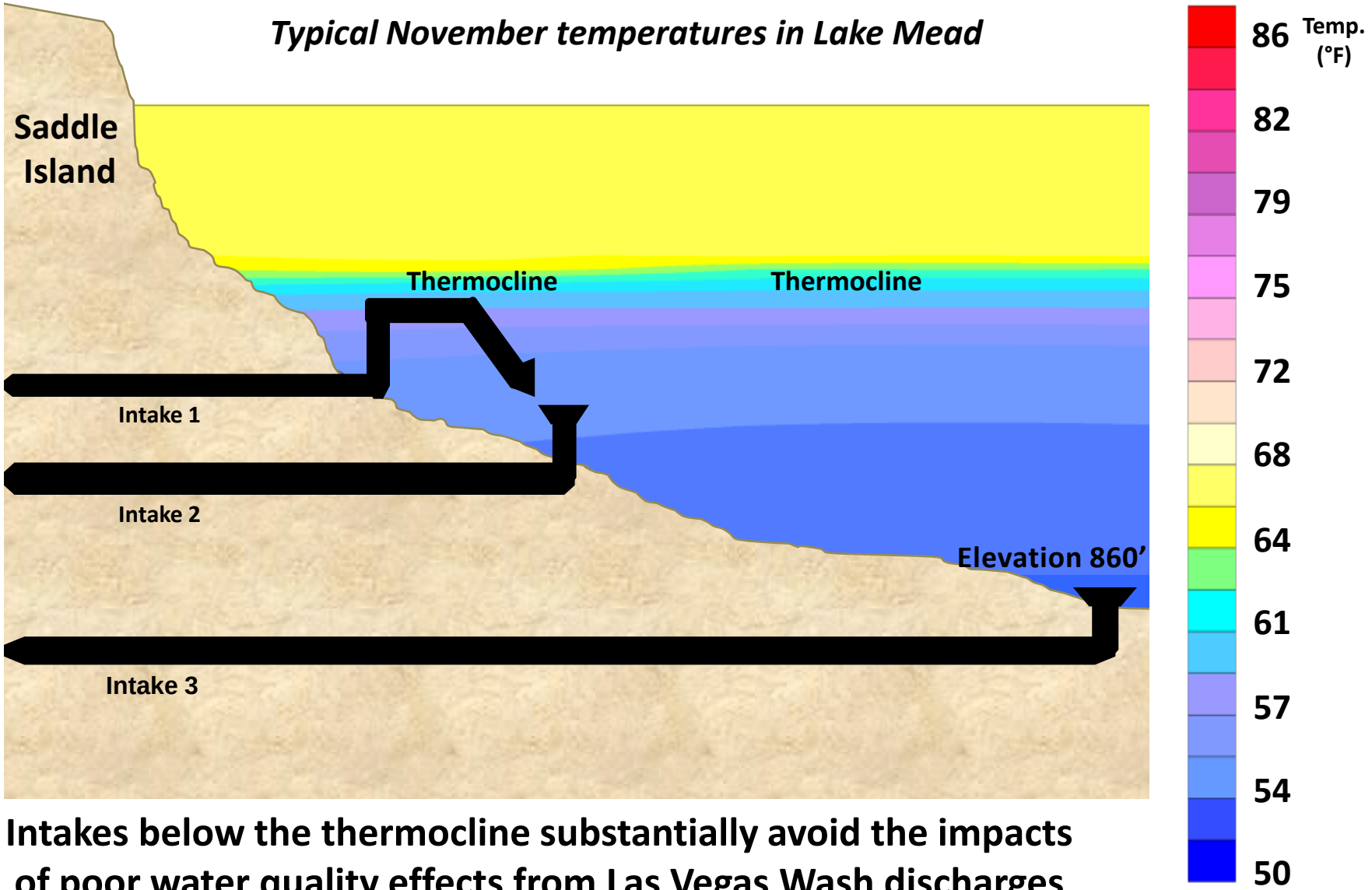


Regional Water System

Between 1995 and 2008, SNWA completed a $2.5 billion Capital Improvements Program which added major components to the regional water system.



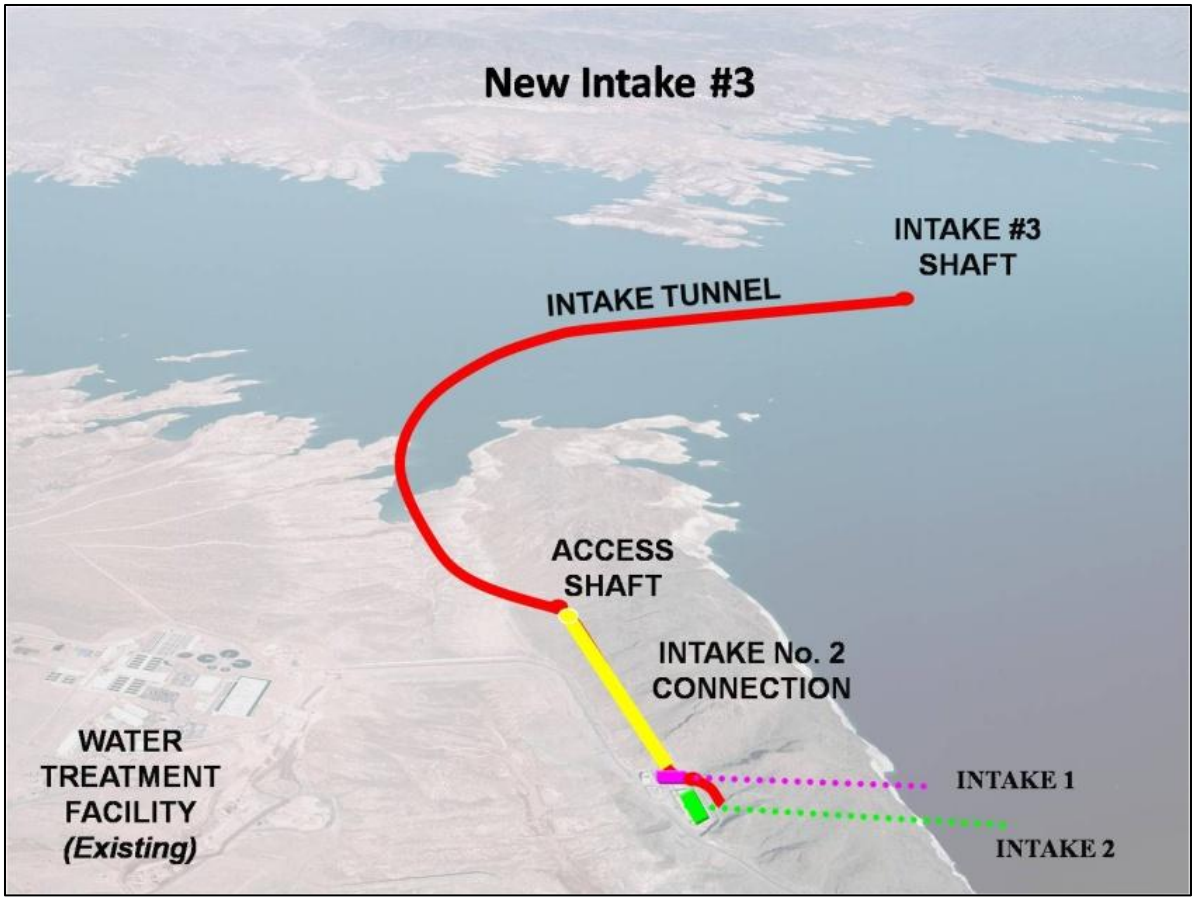
Lake Mead Infrastructure, Intake No. 3



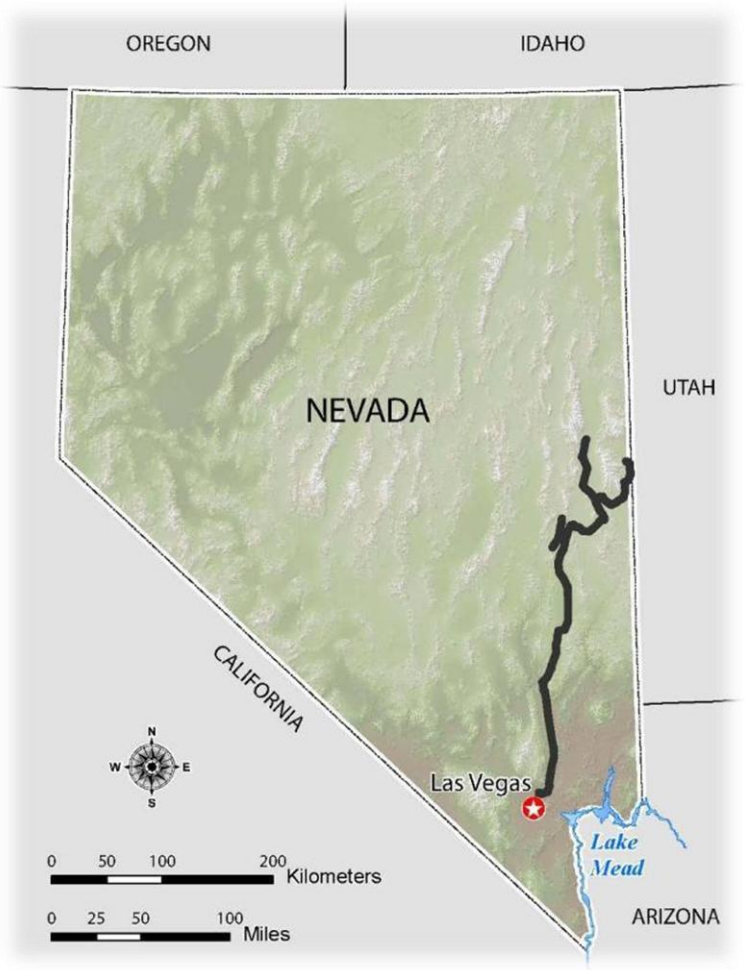
Intakes below the thermocline substantially avoid the impacts of poor water quality effects from Las Vegas Wash discharges

Lake Mead Intake No. 3

- **Existing Drinking Water Intakes at elevations 1,050 ft and 1,000 ft**
- **Loss of Intake #1 between elevation 1,065 – 1,050 ft**
- **Completion of Intake No. 3 at elevation 860 ft**

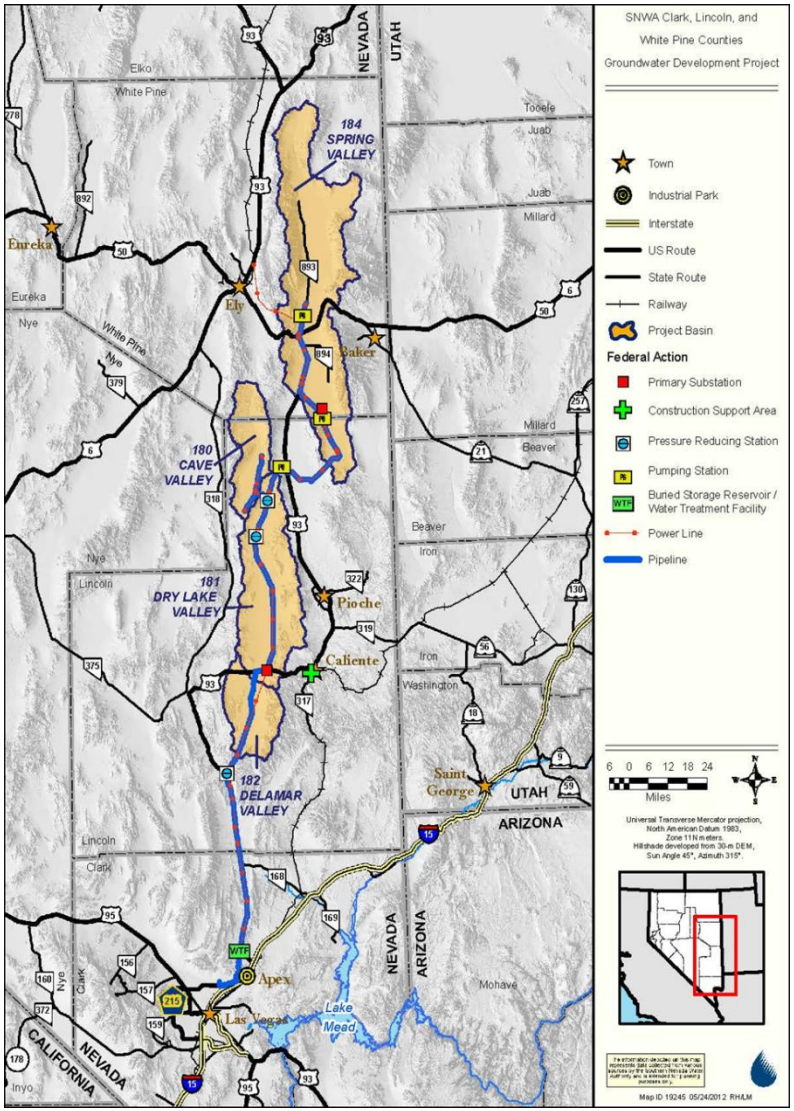


In-State Groundwater Resources



In 2012, the Nevada State Engineer granted nearly 84,000 acre-feet per year of permitted groundwater rights from four groundwater basins located in eastern Nevada.

Groundwater Development

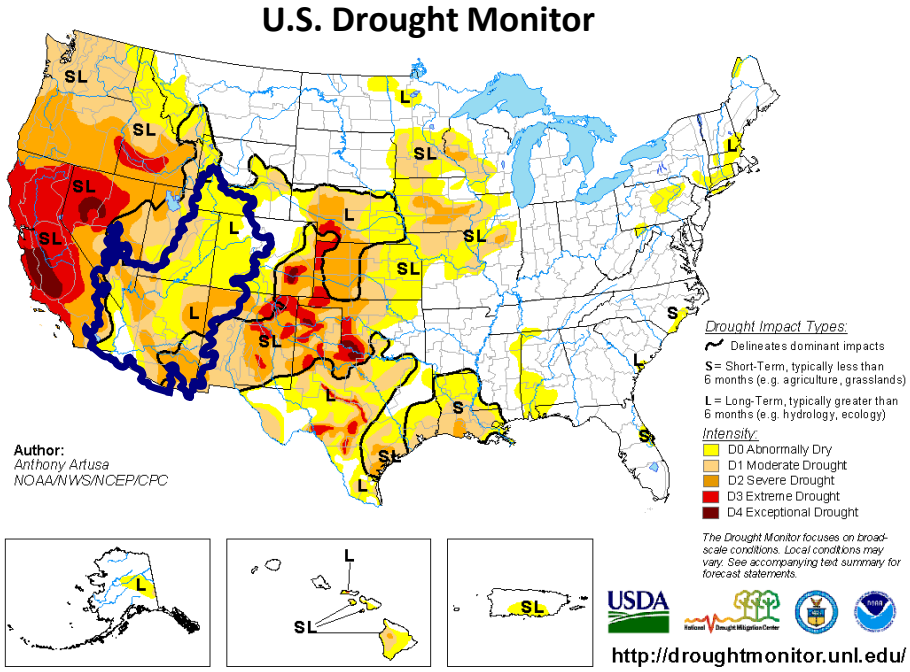


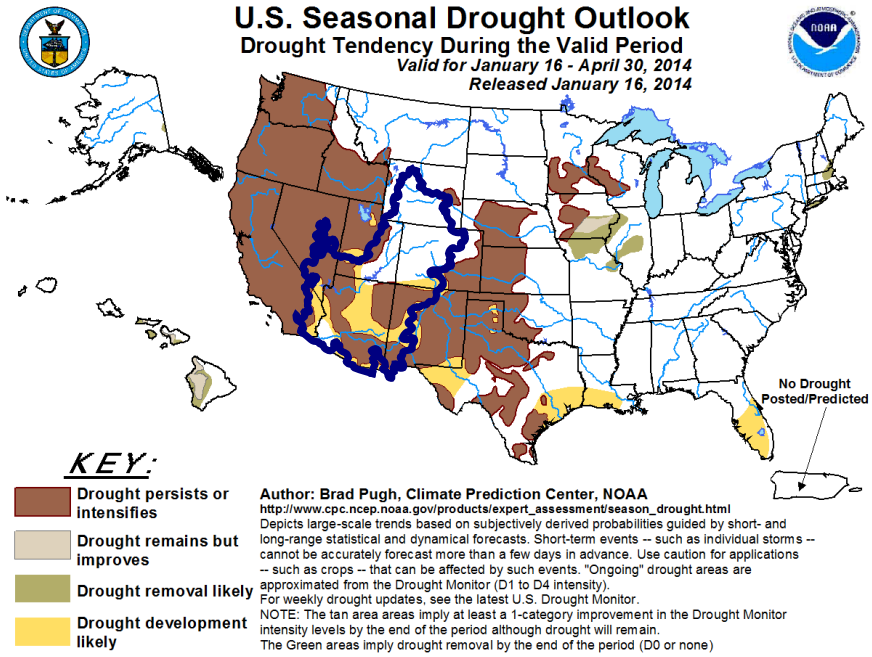
- 120,000 afy of groundwater from 5 basins
- 8-year public environmental analysis process
- 500 environmental measures, including over 35 separate environmental plans
- Additional data collection and environmental analysis will be required

CBRFC Forecasting – Water Supply Perspective

- **Colorado River Water Supply**
  - Inflows into the System (Lake Powell)
- **Lake Mead conditions**
- **Federal/State/CBRFC Stakeholder Collaboration**

Monitoring Drought Conditions

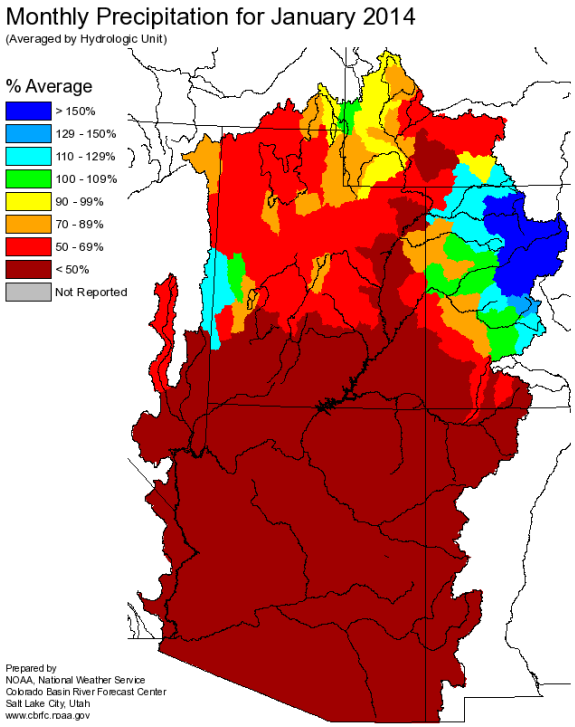




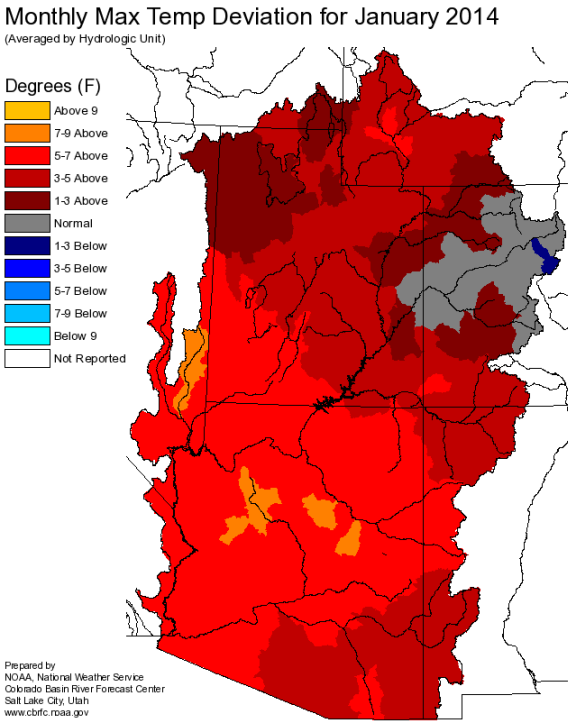
Source: National Oceanic Atmospheric Administration and the U.S. Department of Commerce

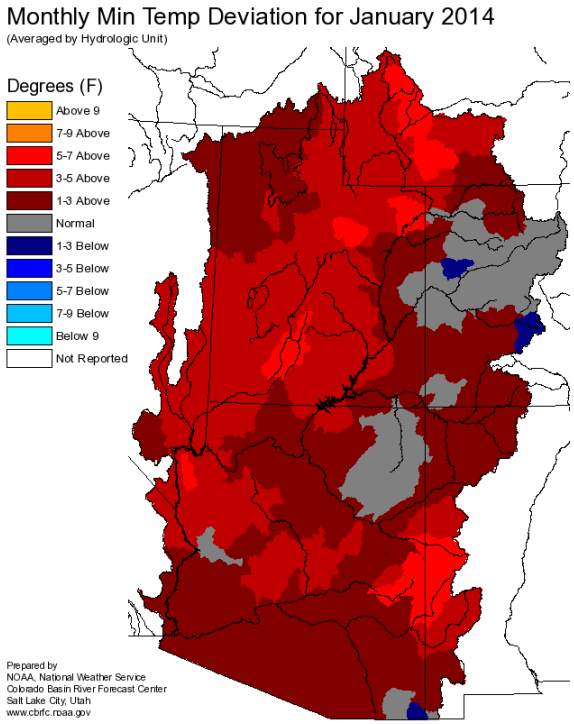
Monitoring Colorado River Basin Conditions

Monthly Precipitation



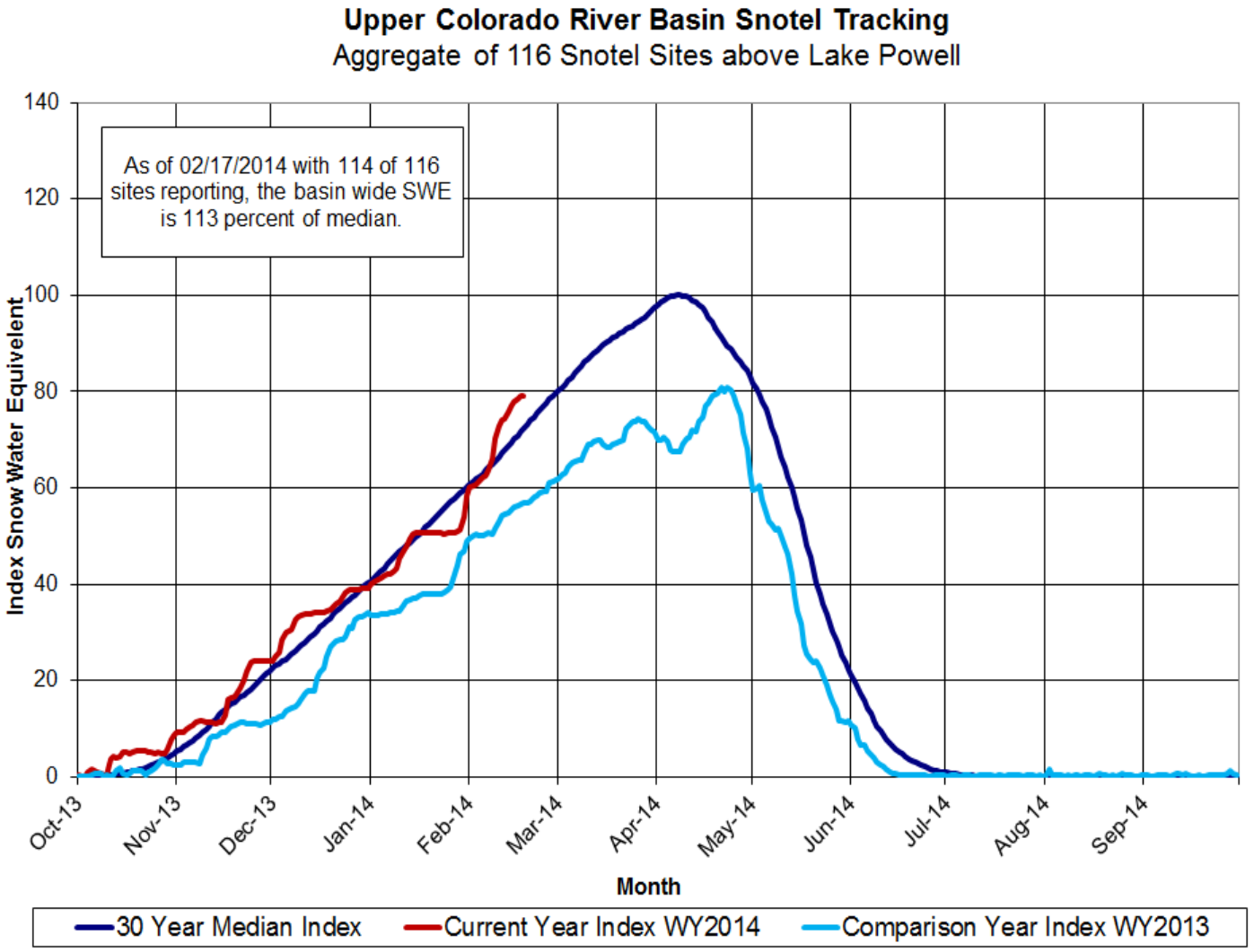
Monthly Min/Max Temperature Deviation





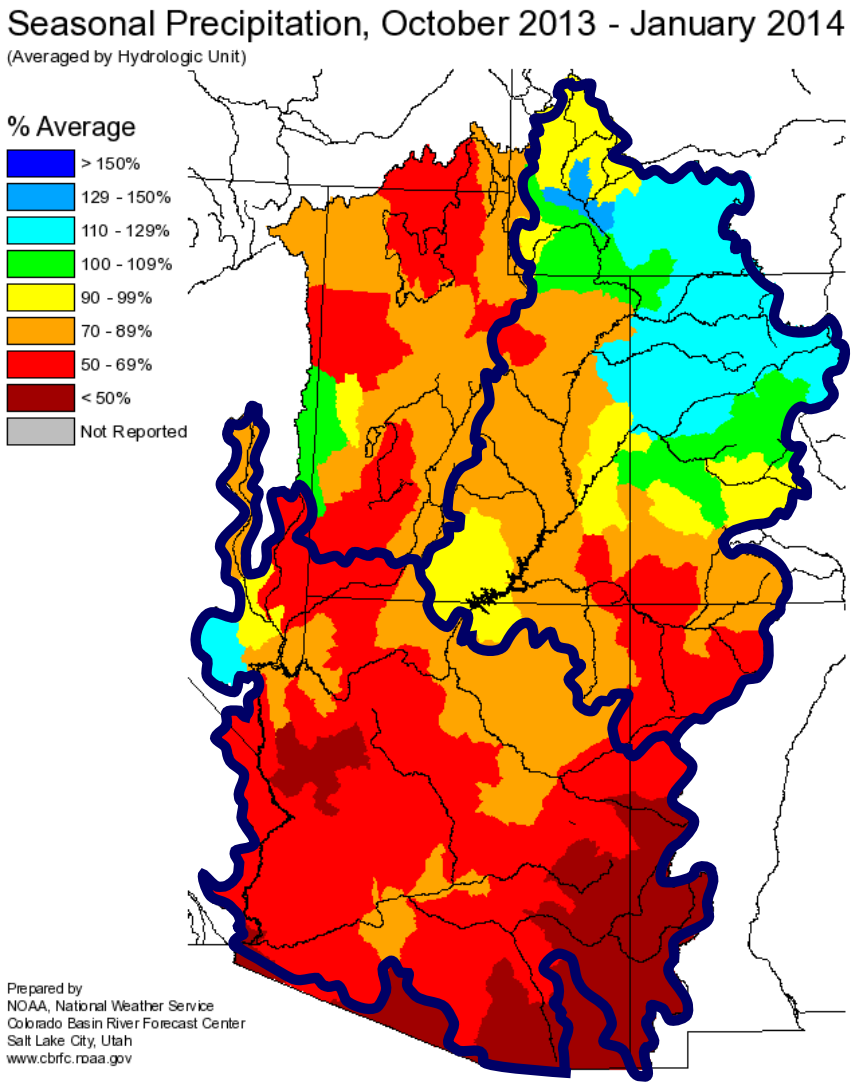
Source: NOAA / NWS / CBRFC

Monitoring Colorado River Basin Conditions



Monitoring Colorado River Basin Conditions

- **January inflow to Lake Powell:** 75% of average
- **Snow Pack:** 112% of average
- **Water Year 2014 Precipitation:** 103% of average
- **Forecasted Water Year 2014 Inflow to Lake Powell:** 101% of average



Monitoring Colorado River Basin Conditions

U.S. Winter Outlook (December – February)

No clear signal in the Upper Basin

(equal chance of above- and below-normal temperature and precipitation)

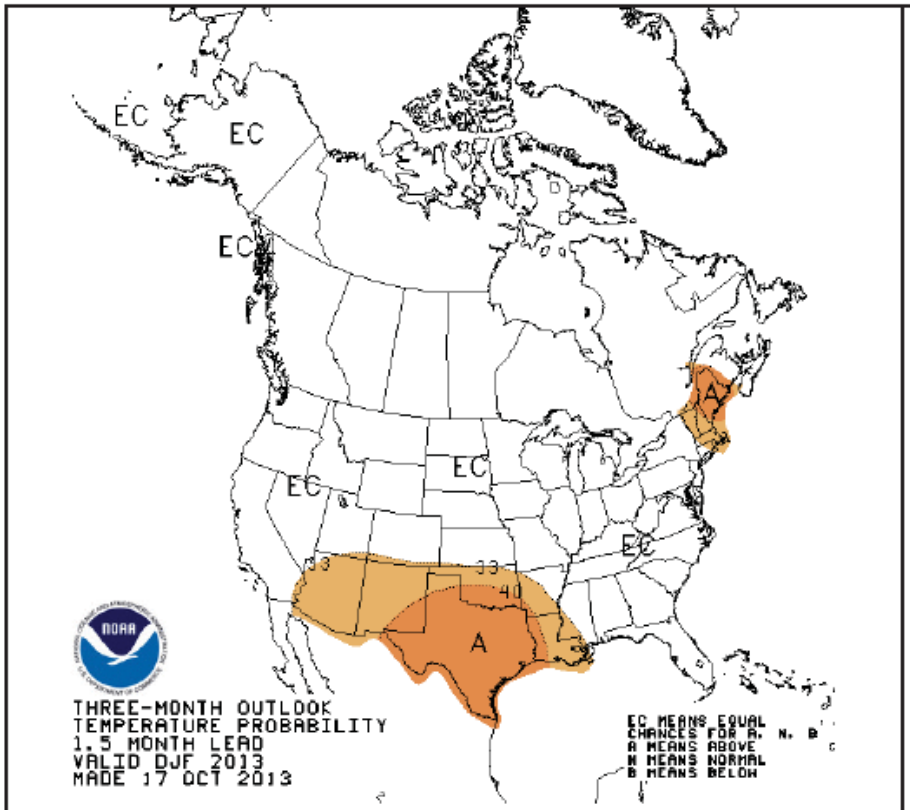


Figure 1a. Three-month temperature outlook for winter 2013-2014, December-January-February.

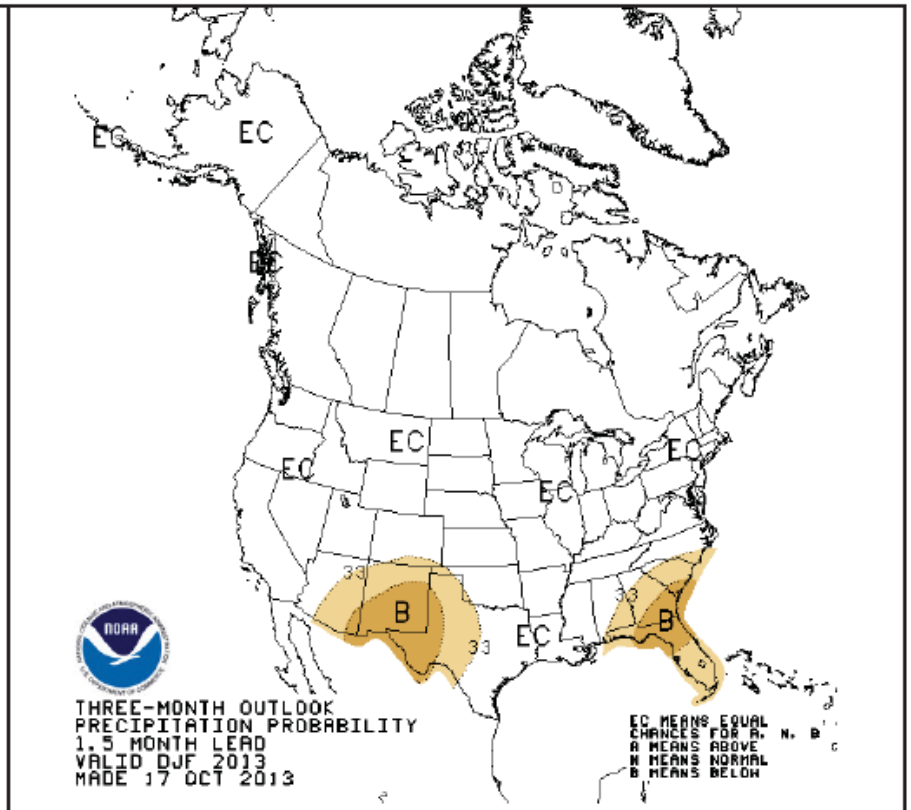
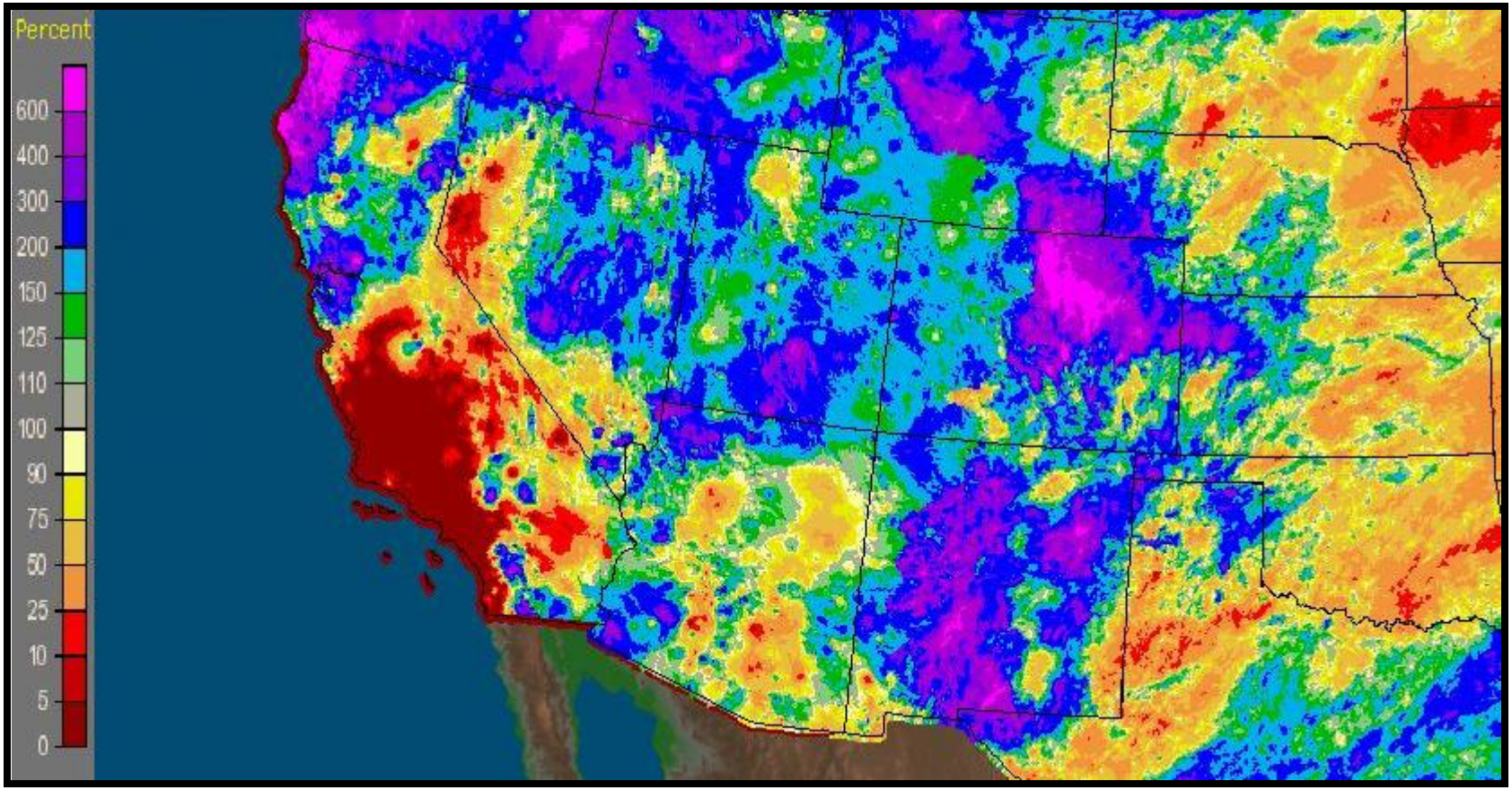


Figure 1b. Three-month precipitation outlook for winter 2013-2014, December-January-February.

Source: NOAA CPC/ NWS / CBRFC

Monitoring Colorado River Basin Conditions

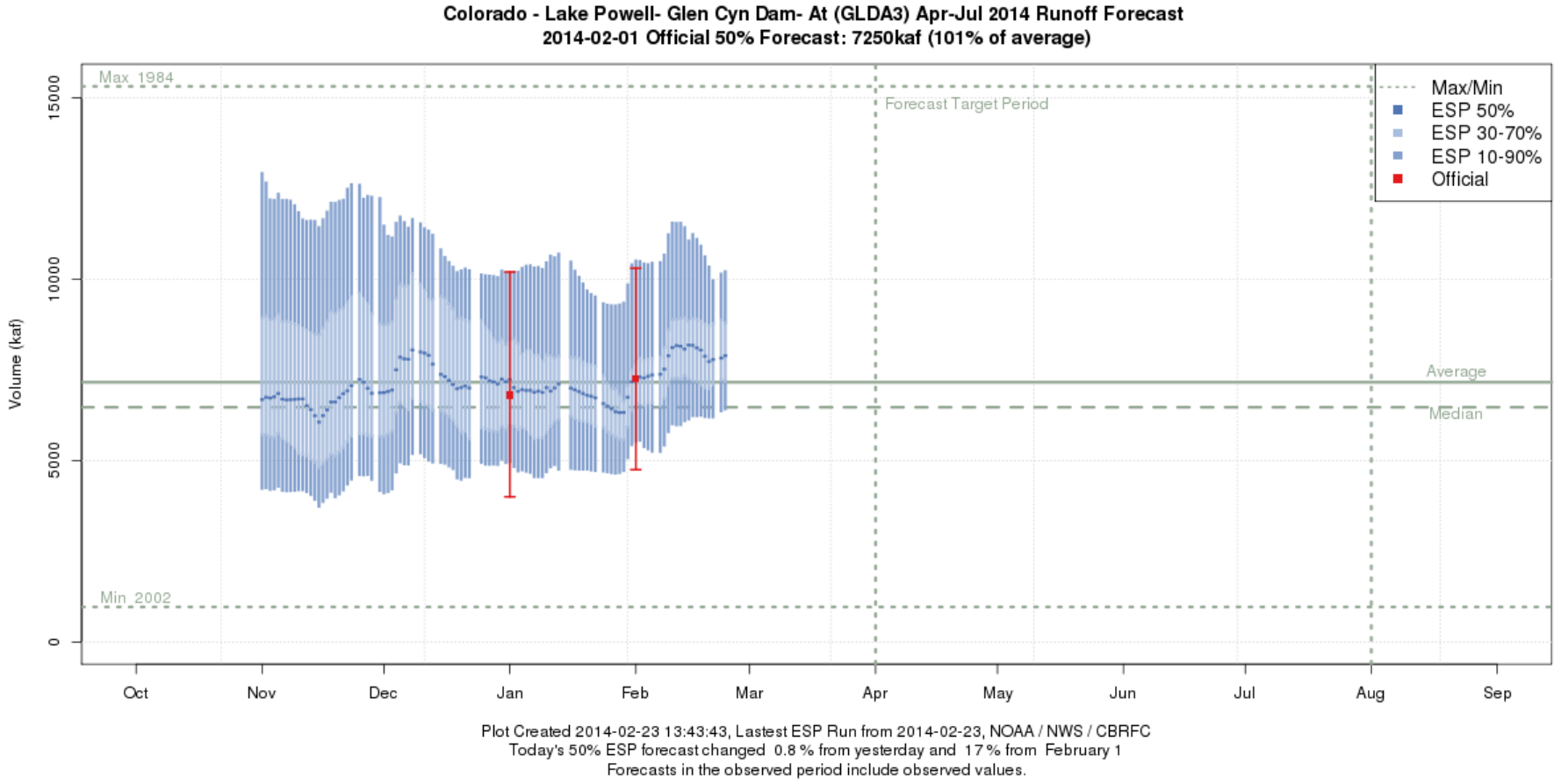
September 2013 Precipitation



The observed inflow into Lake Powell was 210% of normal

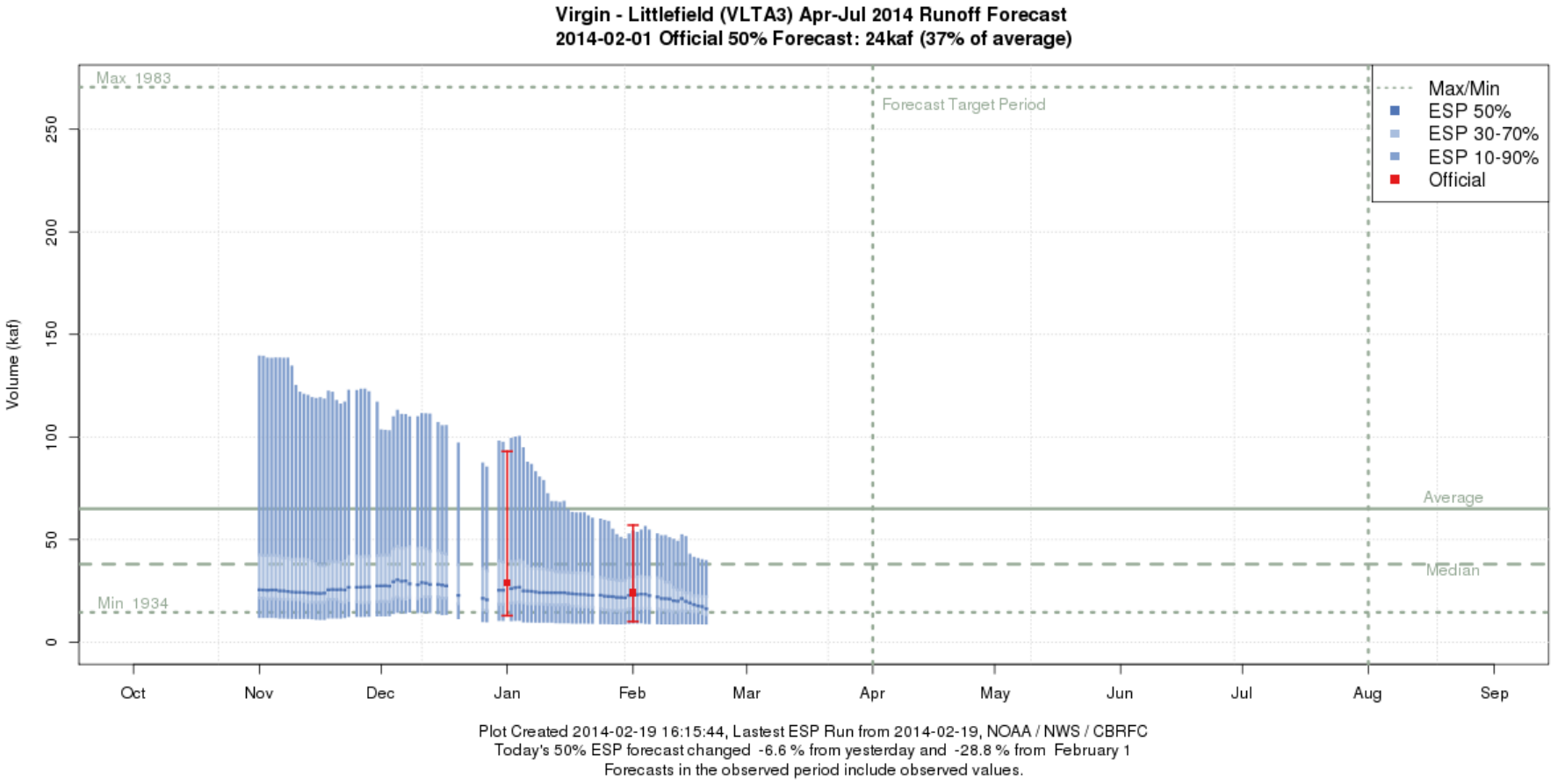
Source: NOAA / NWS / CBRFC

Lake Powell Evolution Plot



Source: CBRFC

Lower Virgin River Evolution Plot



Source: CBRFC

Questions