

Importance of Recycled Water and Potable Reuse to Regional Water Supply Reliability

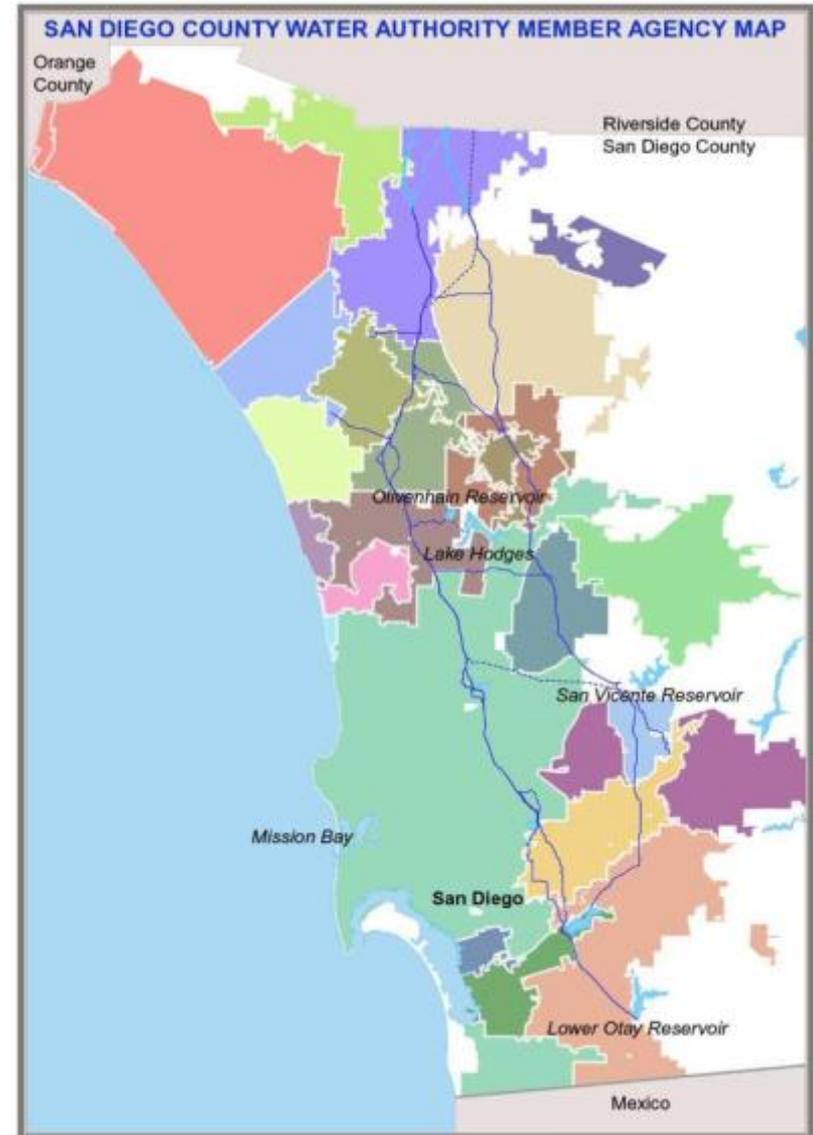


San Diego Regional Water Board
February 2015

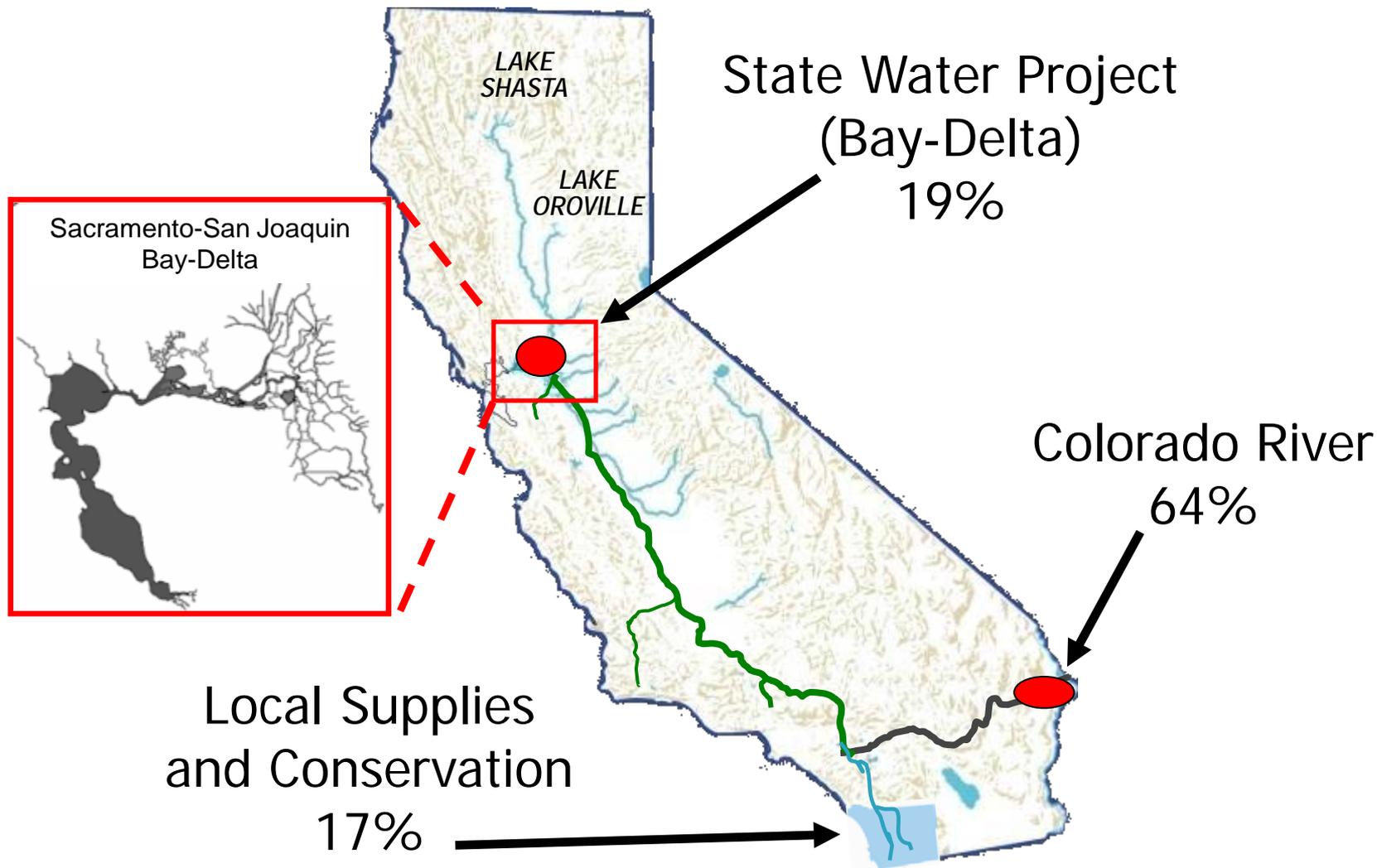
Toby Roy
Water Resources Manager

San Diego County Water Authority

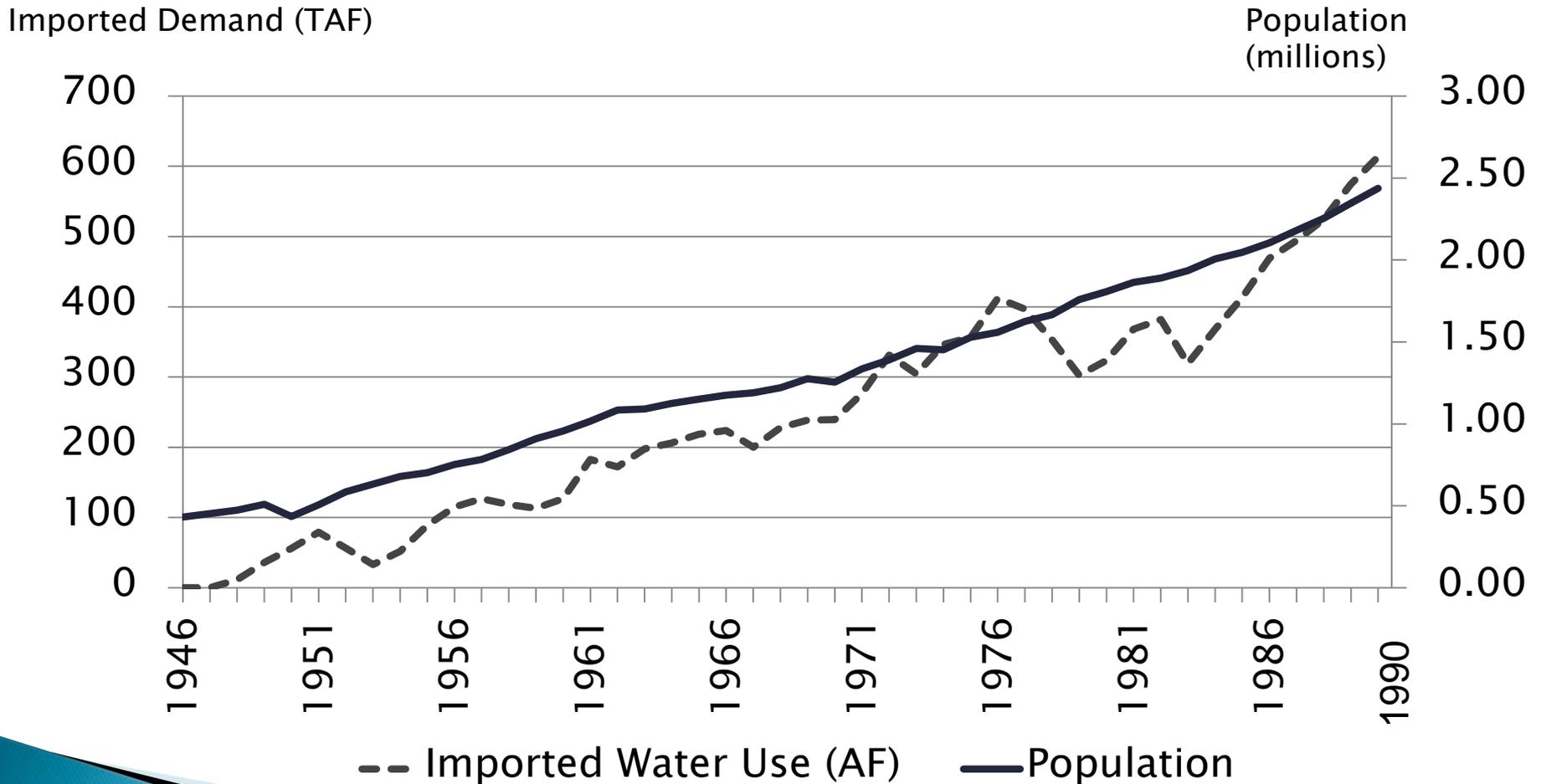
- ▶ Wholesale water agency created by State Legislature in 1944
 - 24 member agencies
 - 36-member board of directors
 - Serves 3.1 million people and region's \$206 billion economy
 - 97% of county's population
- ▶ Mission is to provide safe and reliable water supply to member agencies



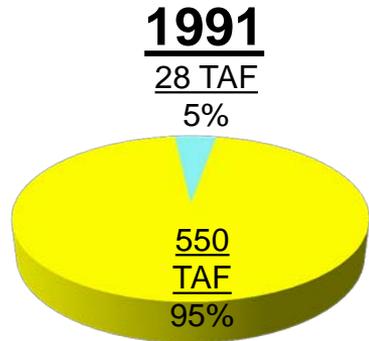
Sources of San Diego County's Water Supply (2010-14 five-year average)



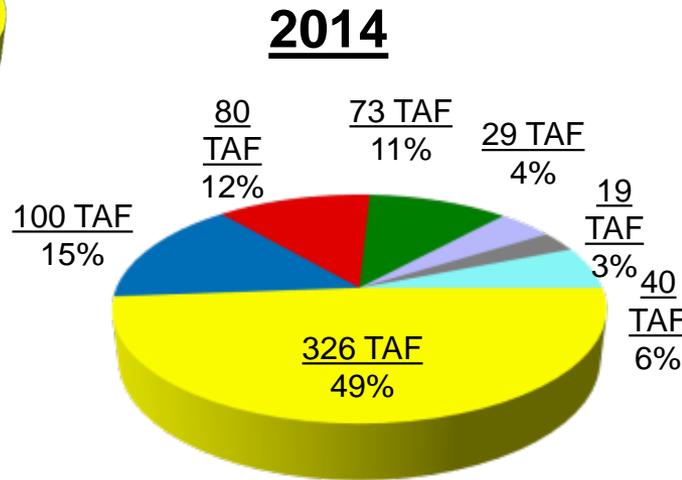
Growth in Reliance on Imported Water (1946-1990)



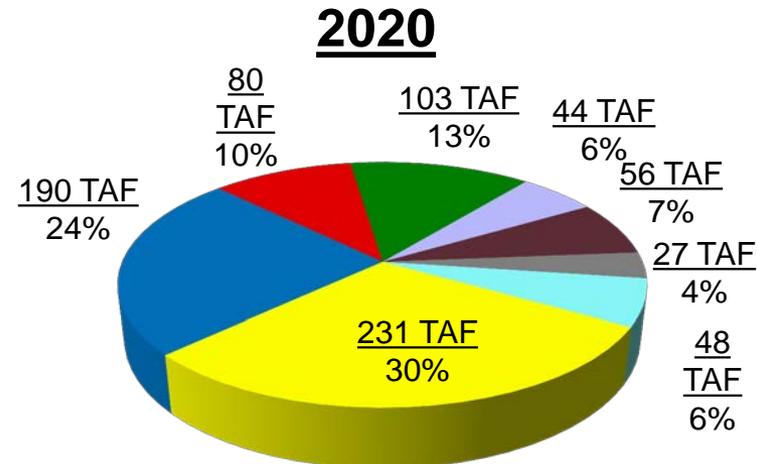
Increasing San Diego County's Water Supply Reliability through Supply Diversification



Total = 578 TAF



Total = 667 TAF



Total = 779 TAF

- Metropolitan Water District
- Imperial Irrigation District Transfer
- All American & Coachella Canal Lining
- Conservation (existing and additional)

- Recycled Water
- Seawater Desalination
- Groundwater
- Local Surface Water

TAF=Thousand Acre-Feet ⁵

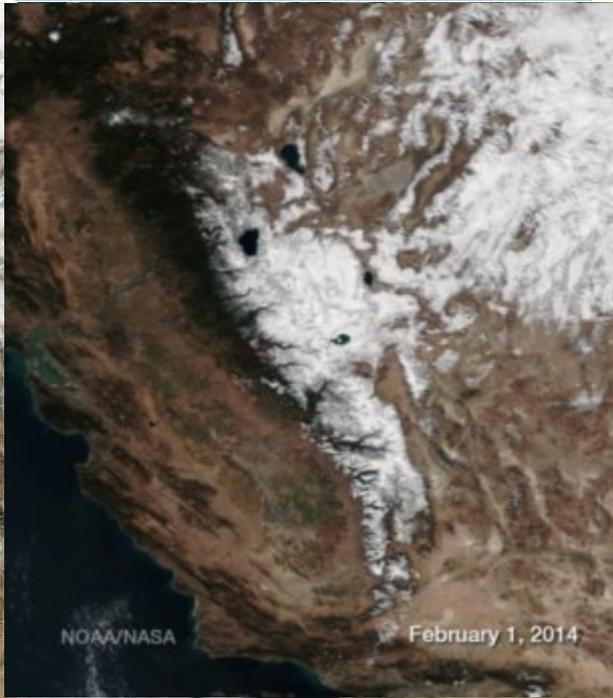


All Dry on the Western Front Comparison of Snowpack in the Sierra Nevada

January 2013



February 2014



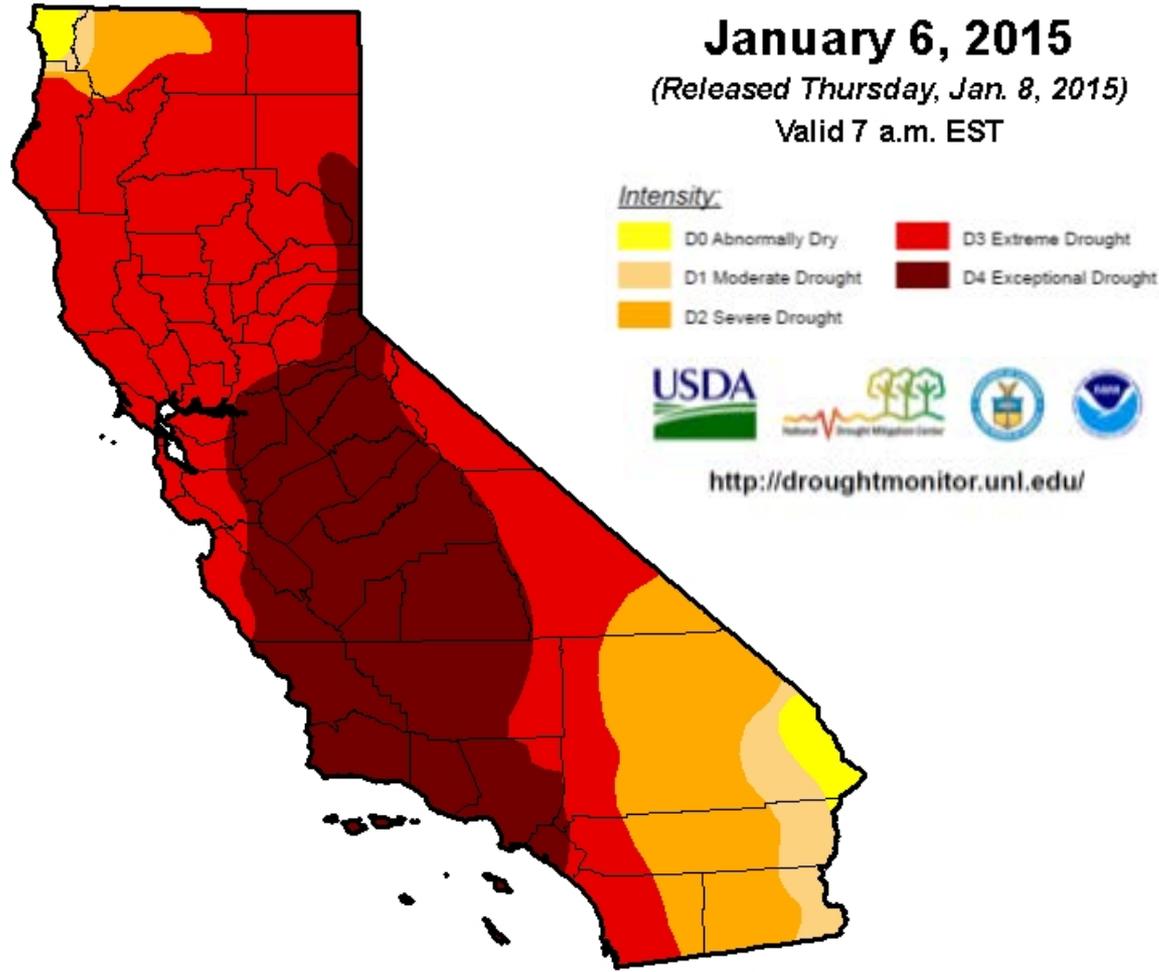
January 2015



Lake Oroville, September 5, 2014

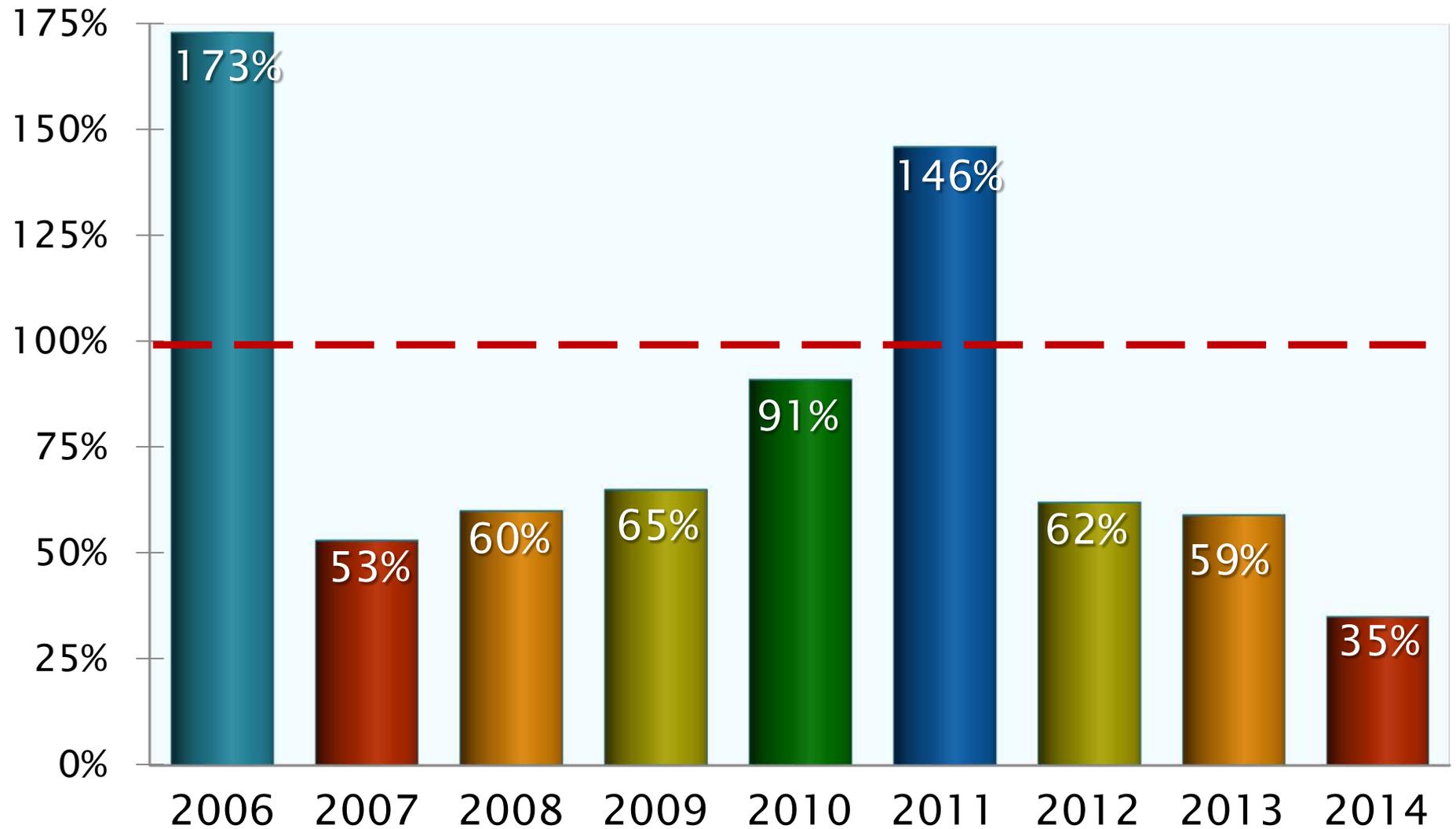


California's Drought Continues

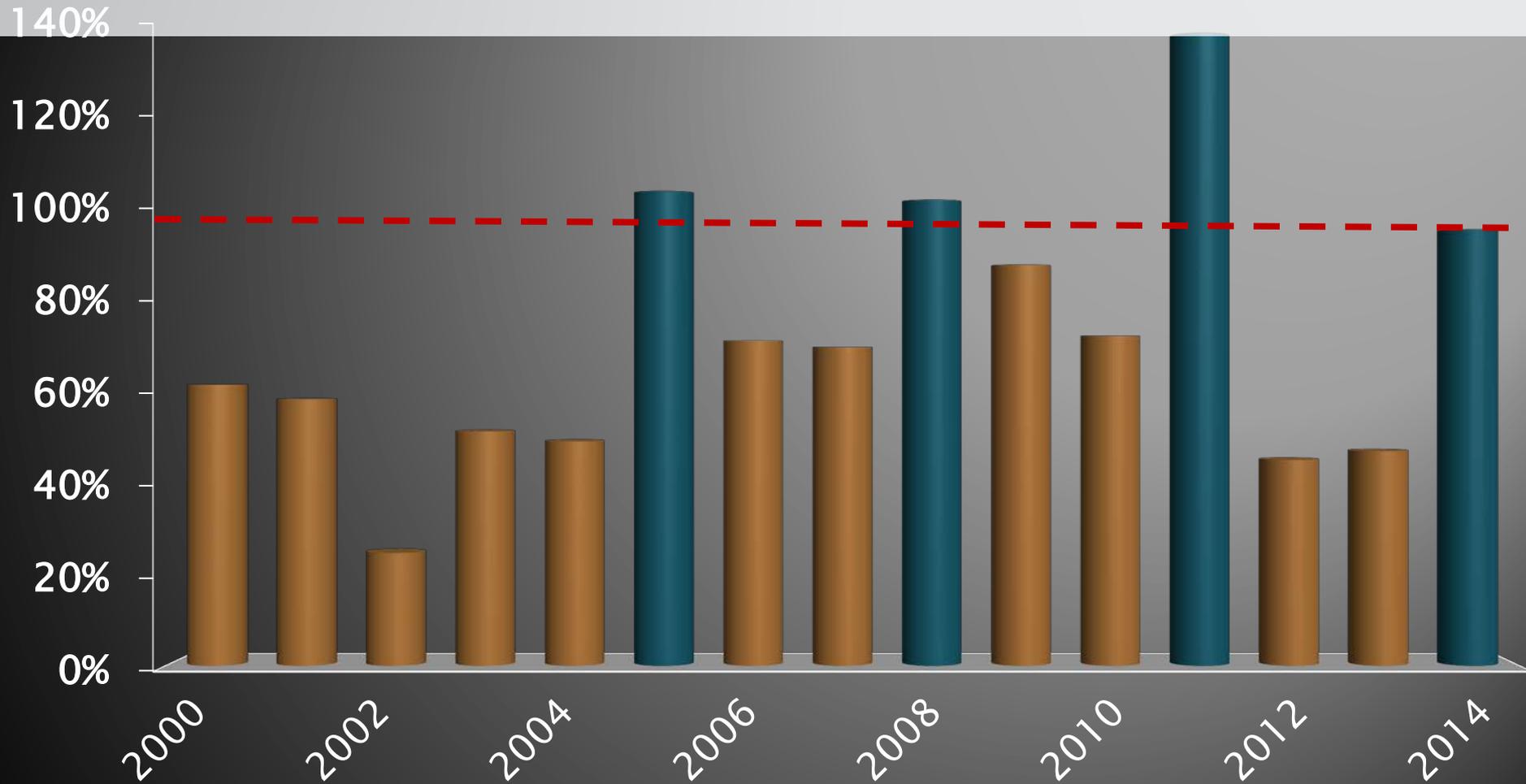


78% of California in Extreme or Exceptional Drought

Average Water Year Statewide Runoff Percent of Average (Water Year: Oct 1 - Sept 30)



Water Year Inflow to Lake Powell on the Colorado River



UWMP Plan – Five Main Elements

Demand Forecast

Econometric Model utilizing SANDAG Regional Growth Forecast

Water Use Efficiency Target

Retail Compliance with SBX7-7: 20% savings by 2020

Water Supplies

Water Authority and member agency verifiable supplies

Water Resource Mix

Resource mix to meet demands in normal and dry water years

Scenario Planning

Process to manage supply uncertainties associated with resource mix

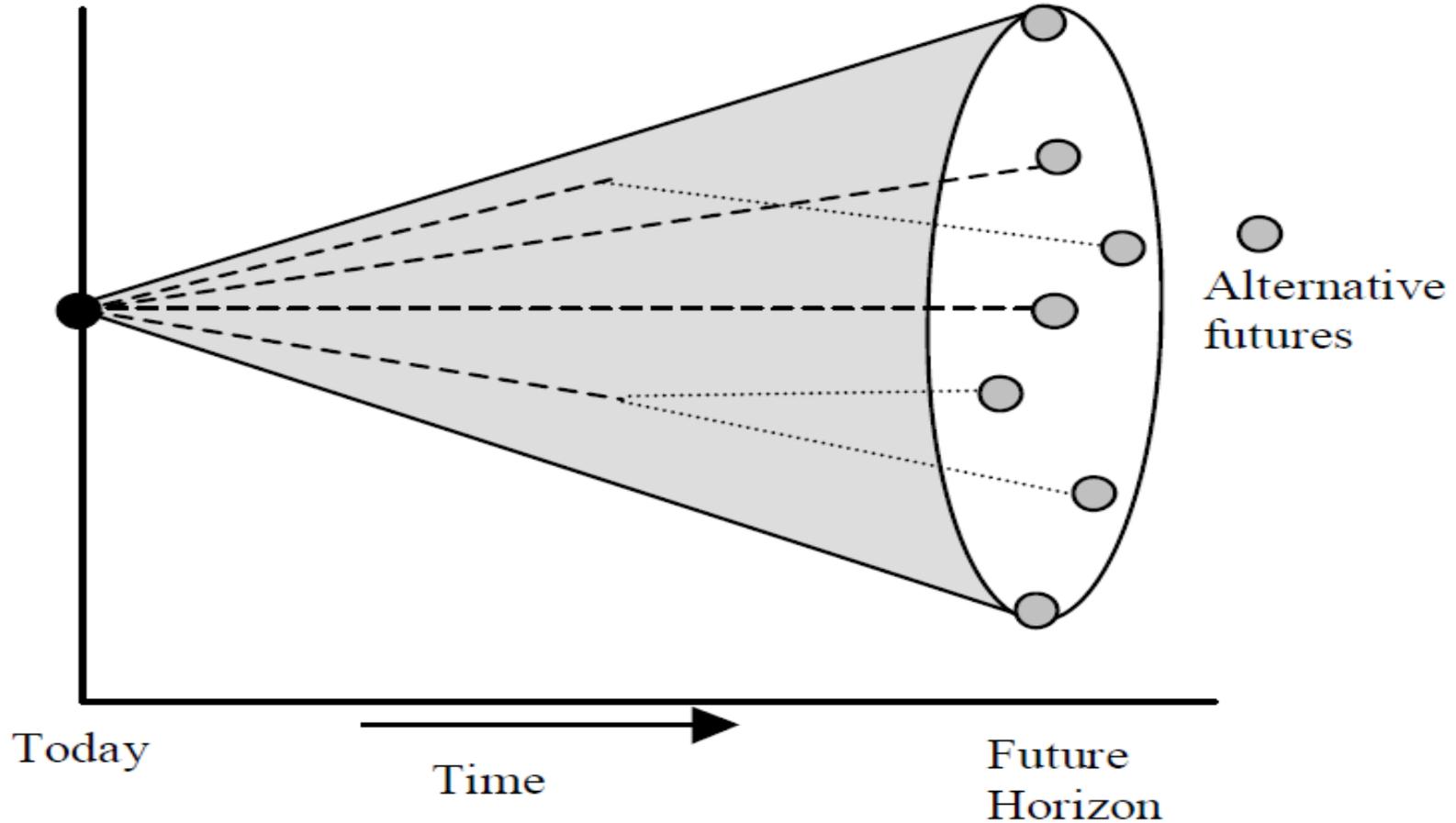
2010 Urban Water Management Plan Incorporating Uncertainty into Supply Planning

1. Analyzed climate change impact on water demands
2. Conducted traditional scenario planning process
 - Identify “no regret” strategies to manage uncertainties and adapt to climate change

Supply Uncertainties



Cone of Uncertainty



San Diego Region Investments Buffer Drought Impacts, Address Uncertainty and Ensure Reliability



Diversification

- Water Authority Colorado River Transfers
- Local Supply Projects (Potable Reuse and Desal)



Regional Storage

- Storage reserves in Southern California
- MWD Diamond Valley Lake



Water Conservation

- Water-Use down 20% since 2007

Regulatory Support for Recycled Water and Potable Reuse

- ▶ **Regional Board**
 - Include practical recycled water provisions in the current Basin Plan update for nitrate/OWTS.
 - Update Basin Plan provisions related to reservoirs as part of triennial review
- ▶ **State Board**
 - Ensure transparent public process and dialogue for adoption of reservoir augmentation regulations
 - Stay on track for expert panel DPR report
- ▶ **Federal/State**
 - Regulate repurified water as a source of supply and not a waste