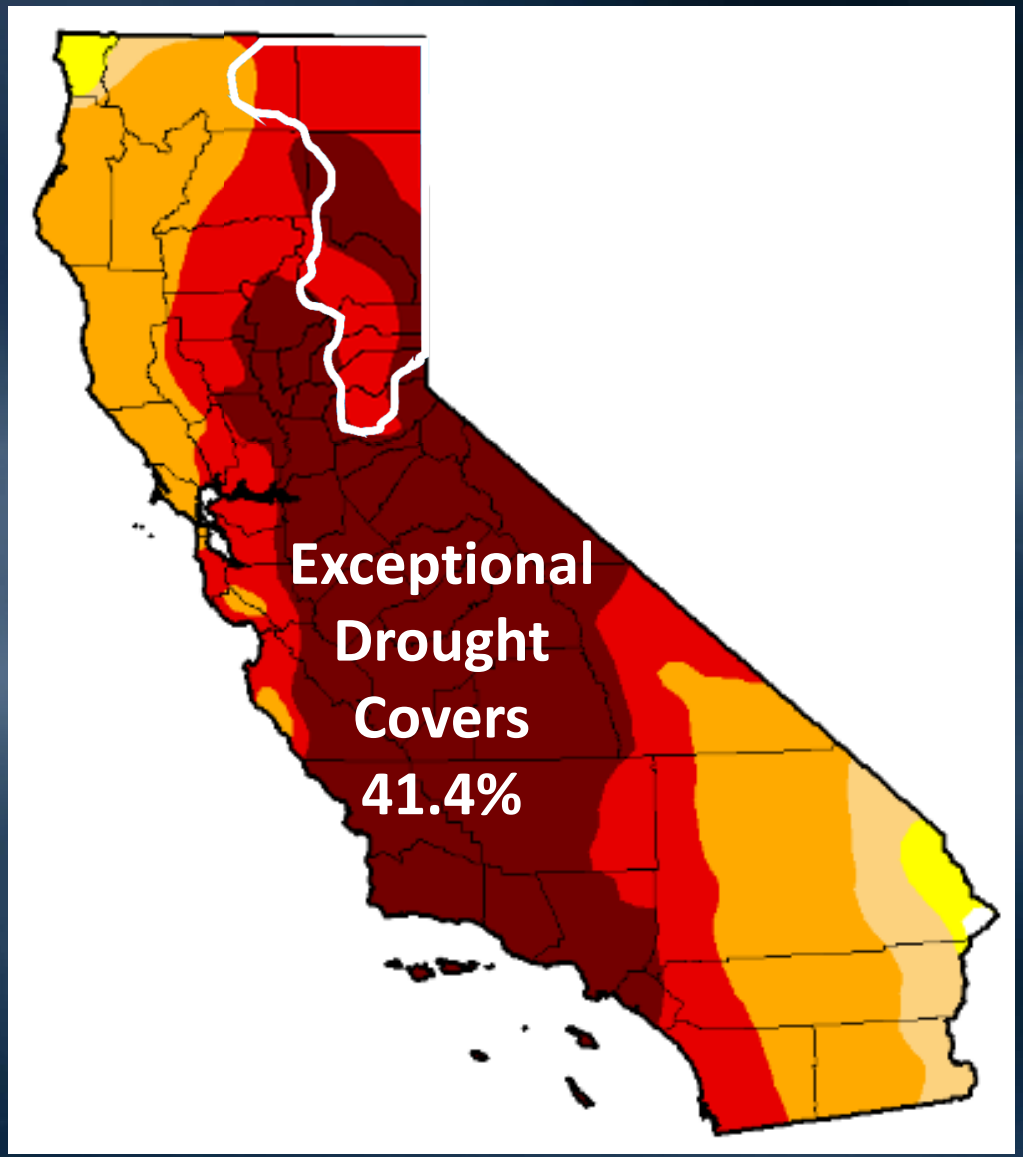
Oral Report on Water Surplus and Drought Management

Water Planning and Stewardship Committee
Item 7a
April 13, 2015

U.S. Drought Monitor - Current

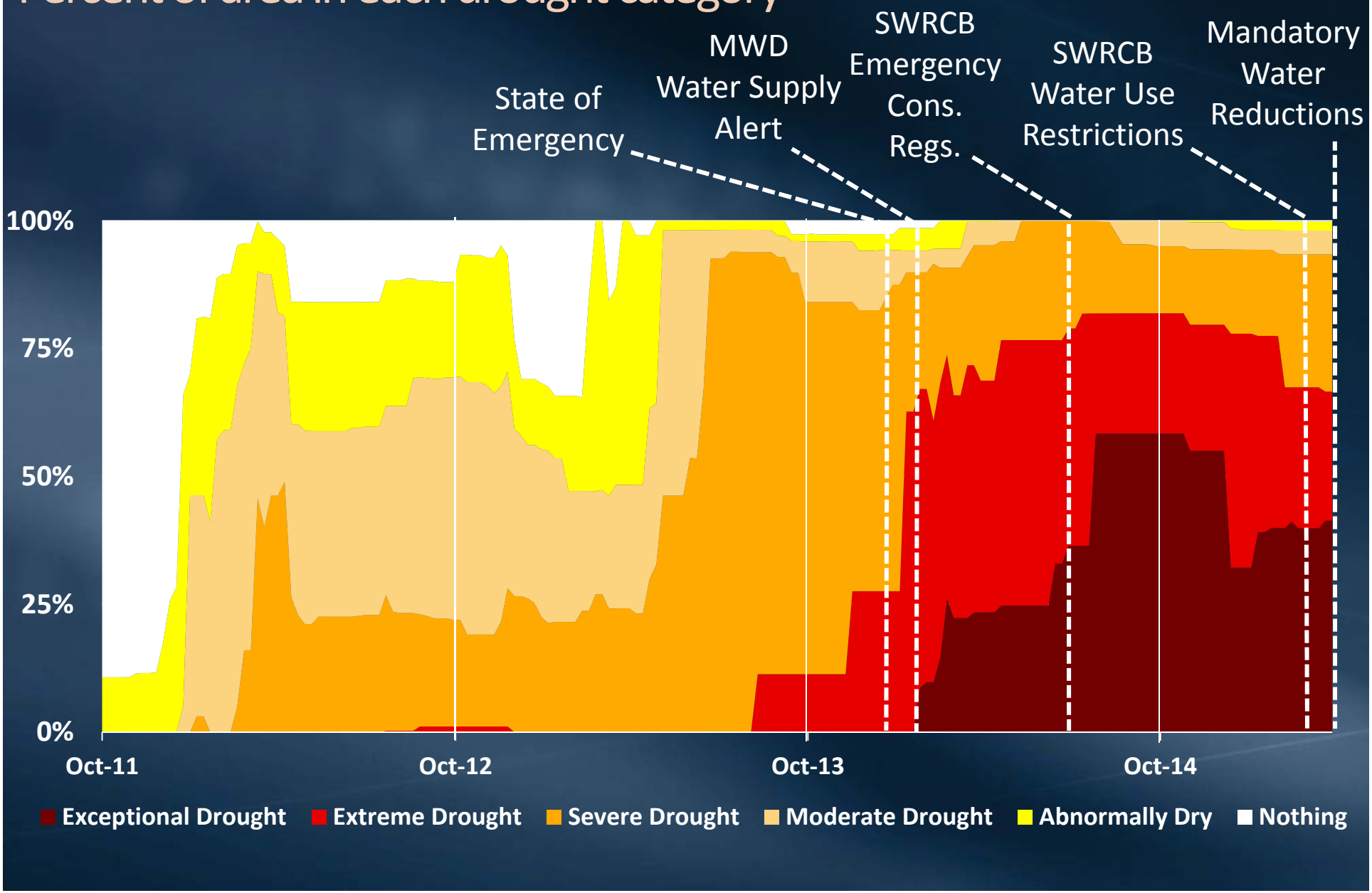


37 Million People Affected by Drought

- Abnormally Dry
- Moderate Drought
- Severe Drought
- Extreme Drought
- Exceptional Drought

Drought Evolution and Actions

Percent of area in each drought category

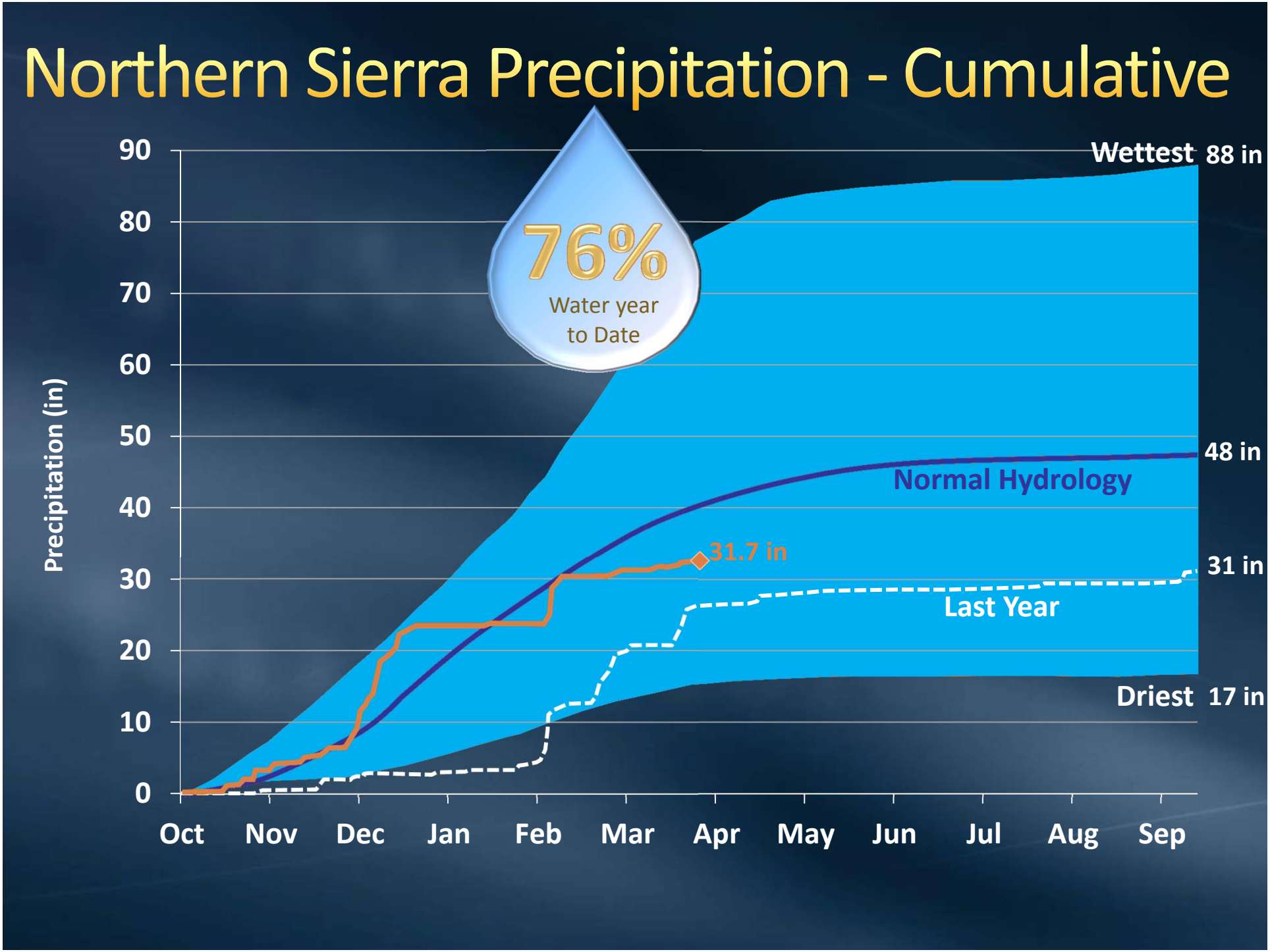


Overview

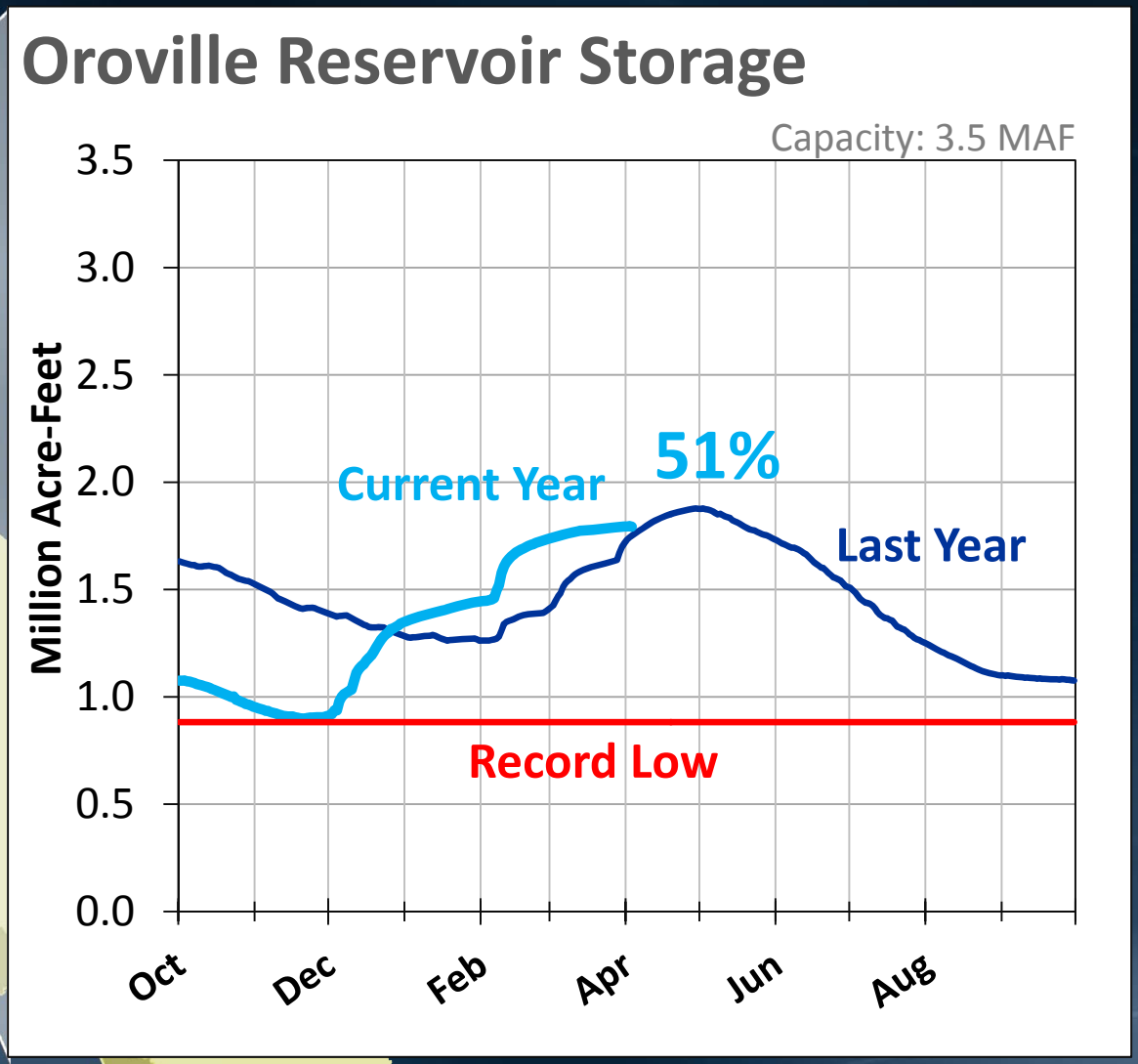
- Current Water Supply Conditions
  - Hydrology update
  - Impacts of dry hydrology on imported supplies
- Supply/Demand Balances
  - WSDM vs. WSAP reporting
  - Water management scenarios

Water Supply Conditions

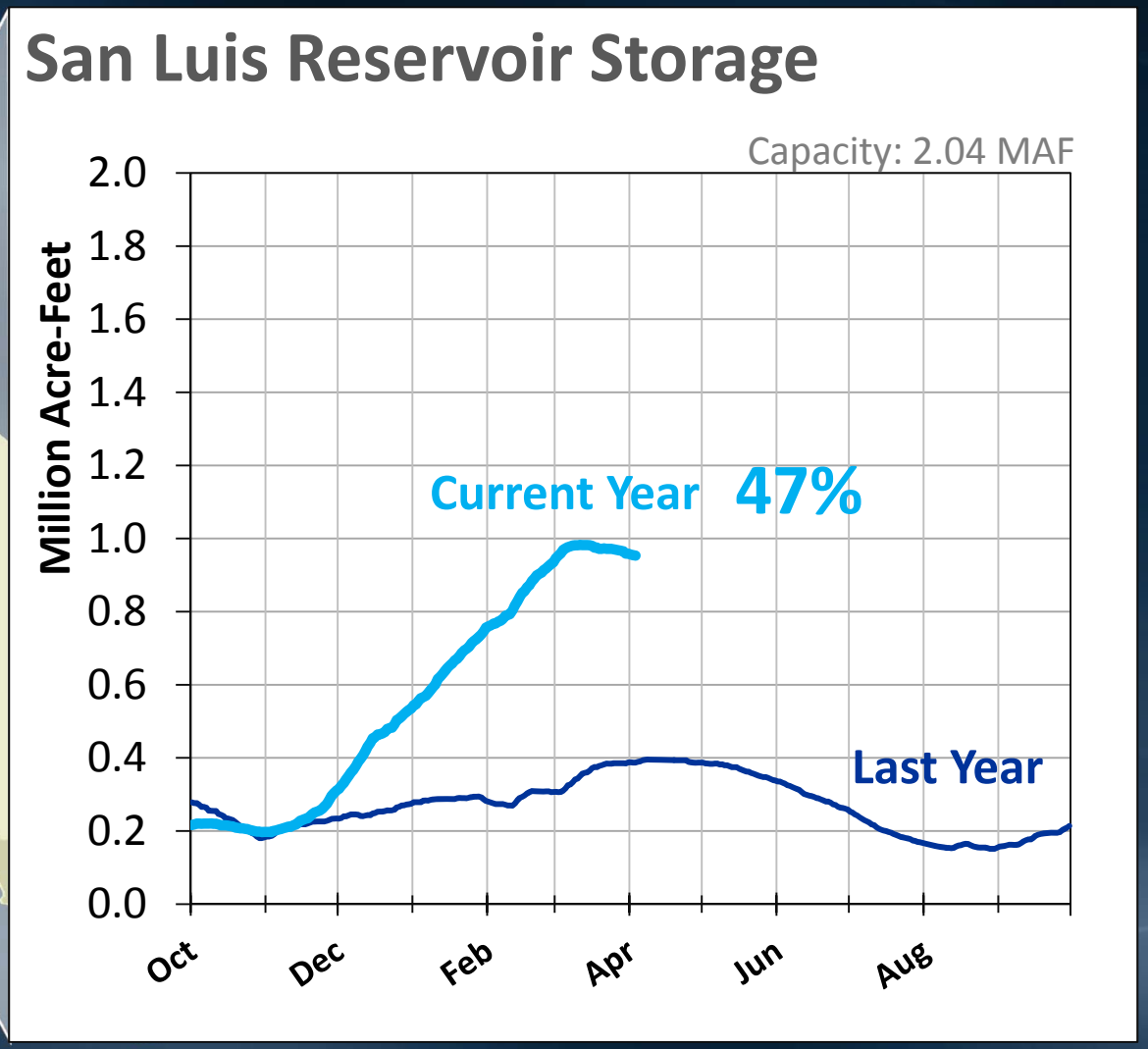
Northern Sierra Precipitation - Cumulative



SWP Storage Increases



SWP Storage Increases

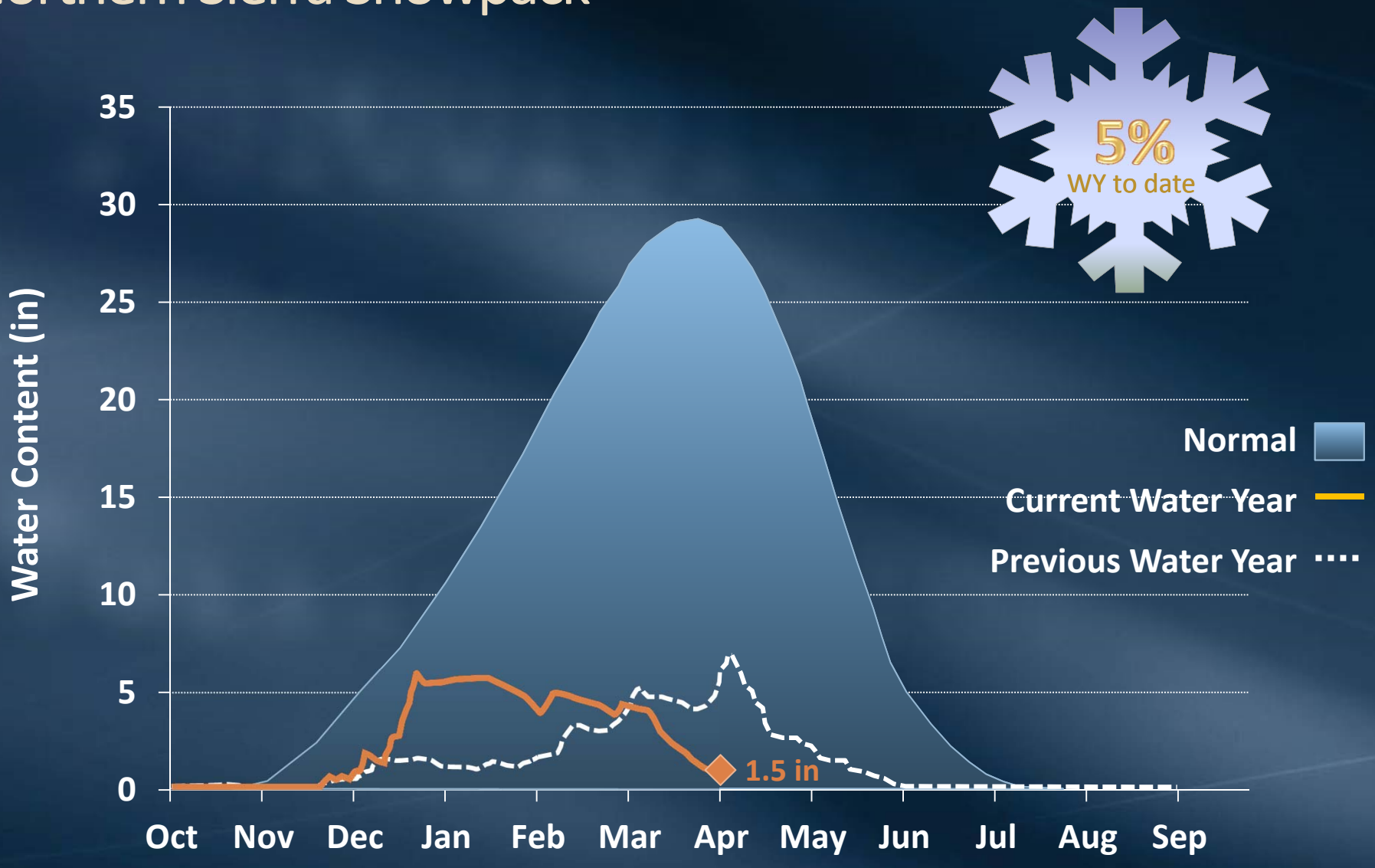


Phillips Snow Course April 1, 2010

Phillips Snow Course April 1, 2015

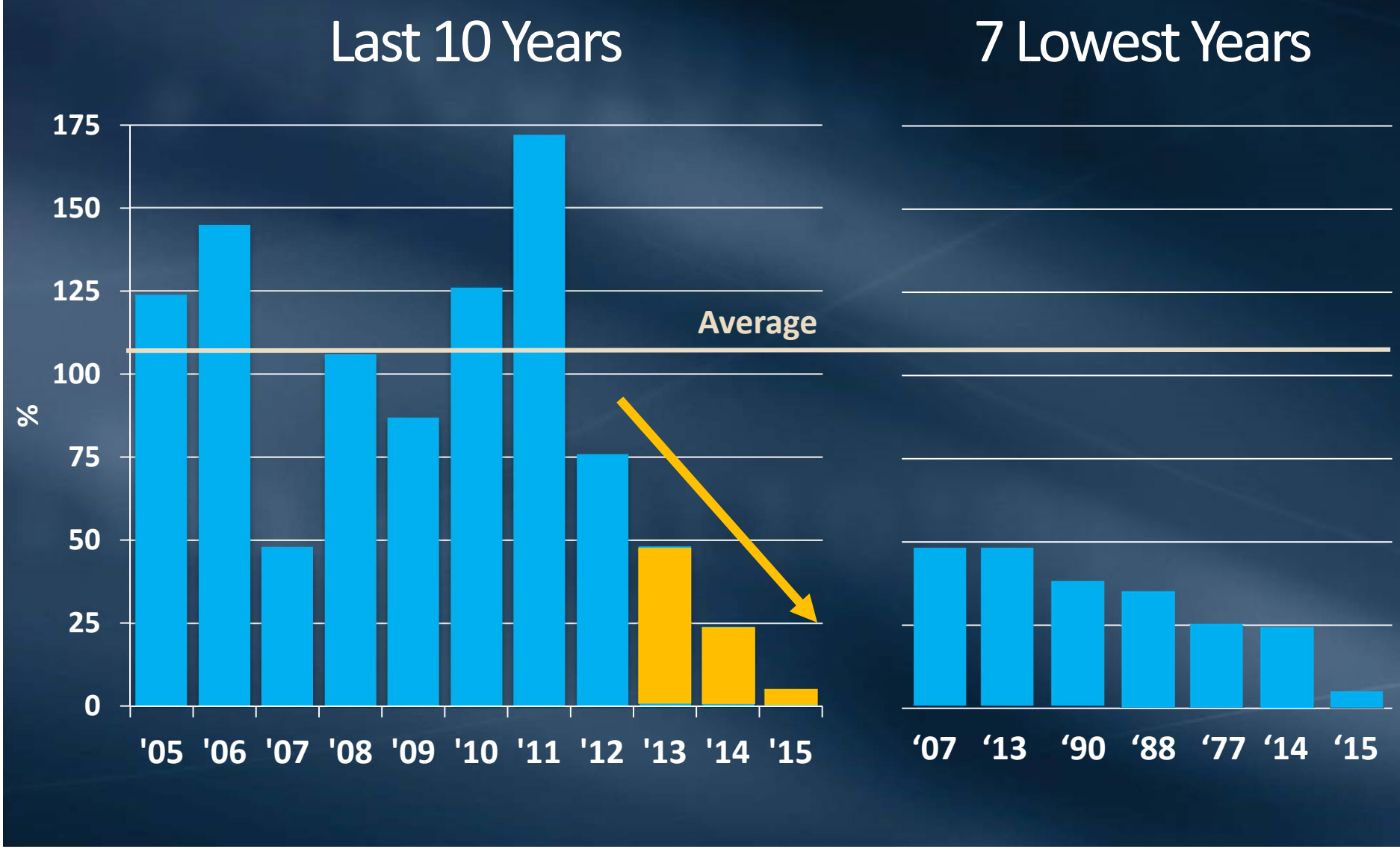
State Water Project Hydrologic Conditions

Northern Sierra Snowpack

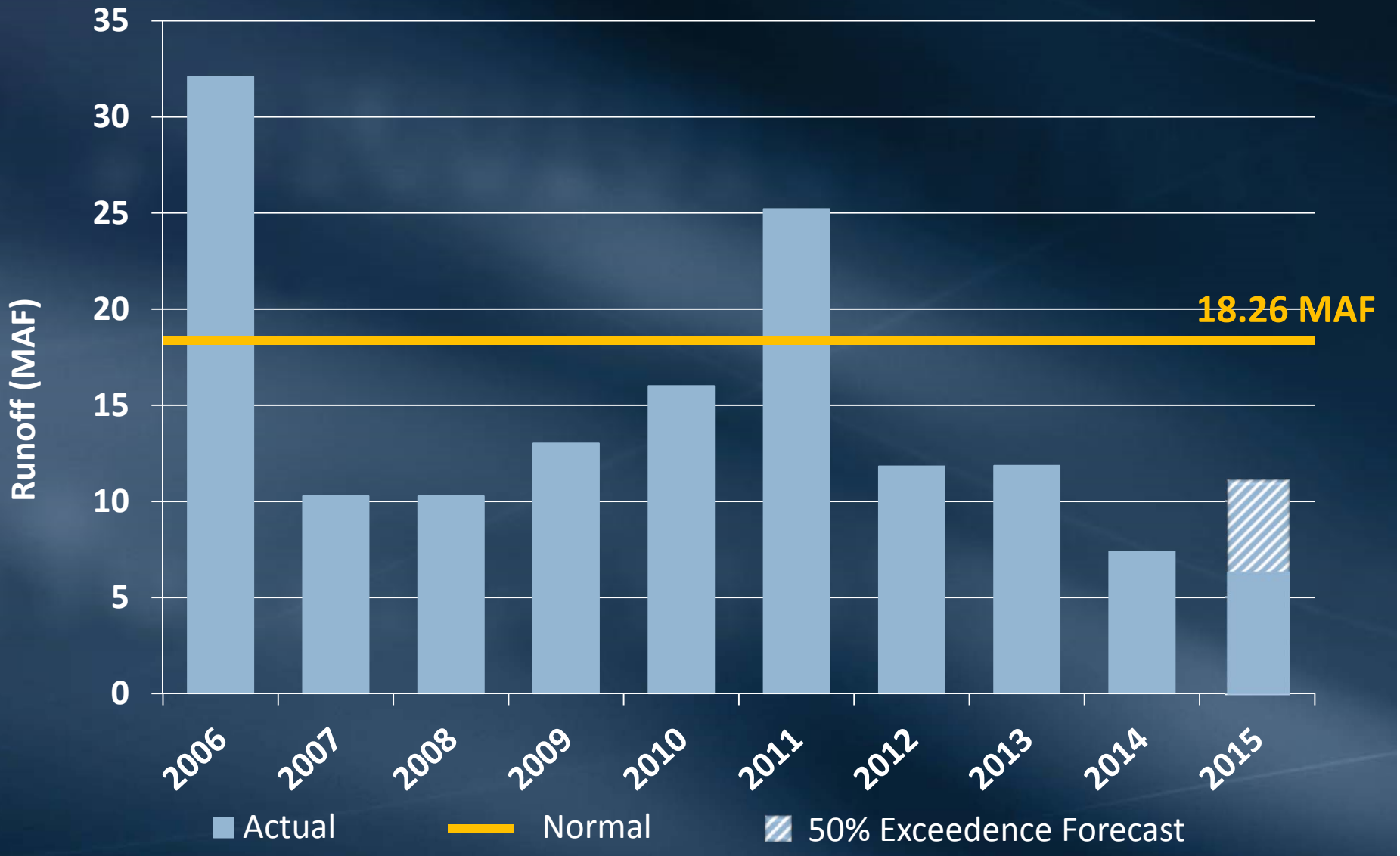


April 1st Historical Snowpack

Northern Sierra



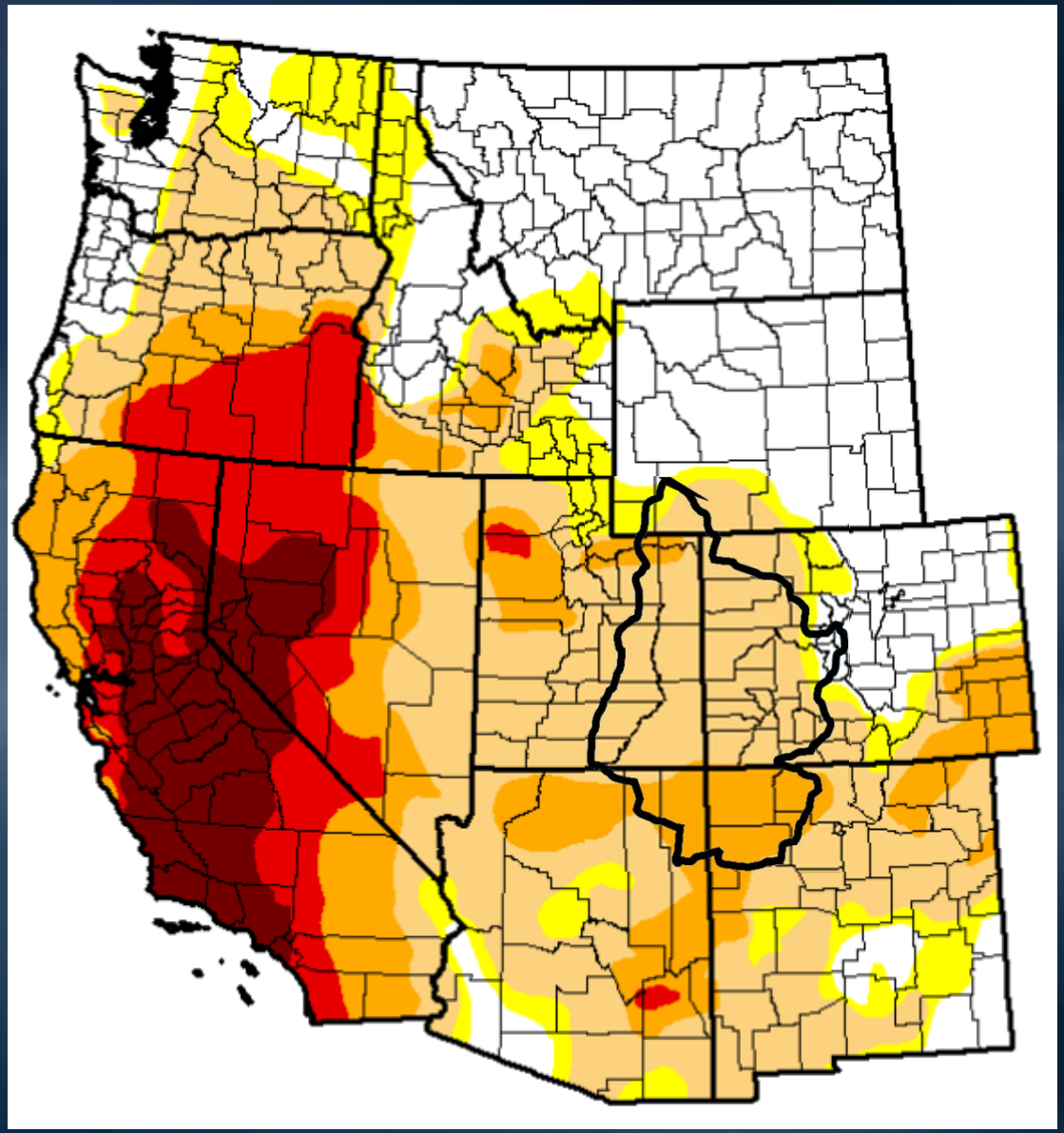
Northern California Runoff



Impacts of Dry Hydrology on SWP

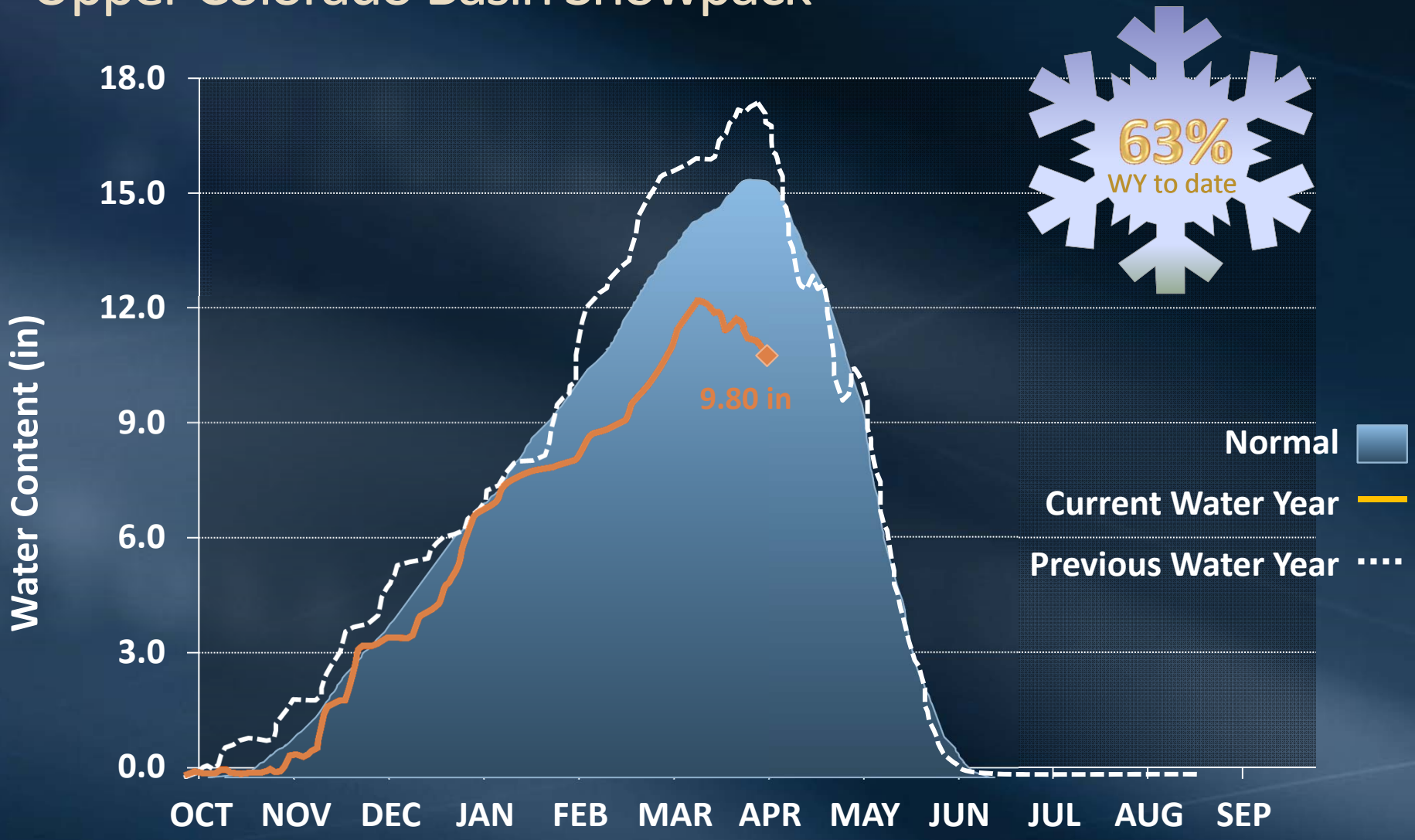
- What you see is what you get
  - Limited reservoir storage increases
- SWP Table A allocation increases will be based on observed rather than forecasted runoff
  - Any increases would be late in the year
- Water in Oroville may be needed to meet upstream and in-Delta regulatory requirements
  - Export opportunities may be limited
- Impacts felt across the State
  - Transfer supplies may be at risk

U.S. Drought Monitor - Current

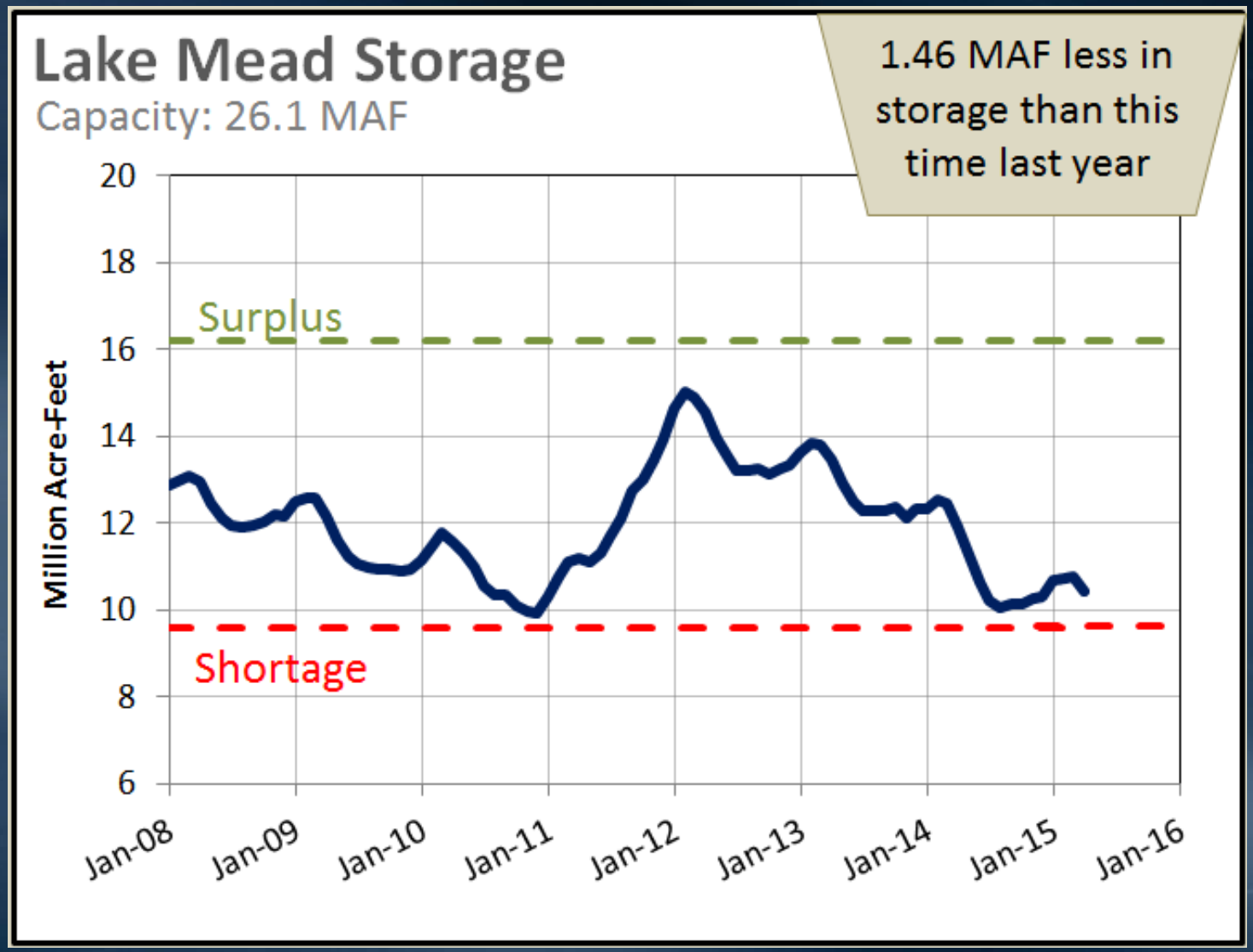


Colorado River Hydrologic Conditions

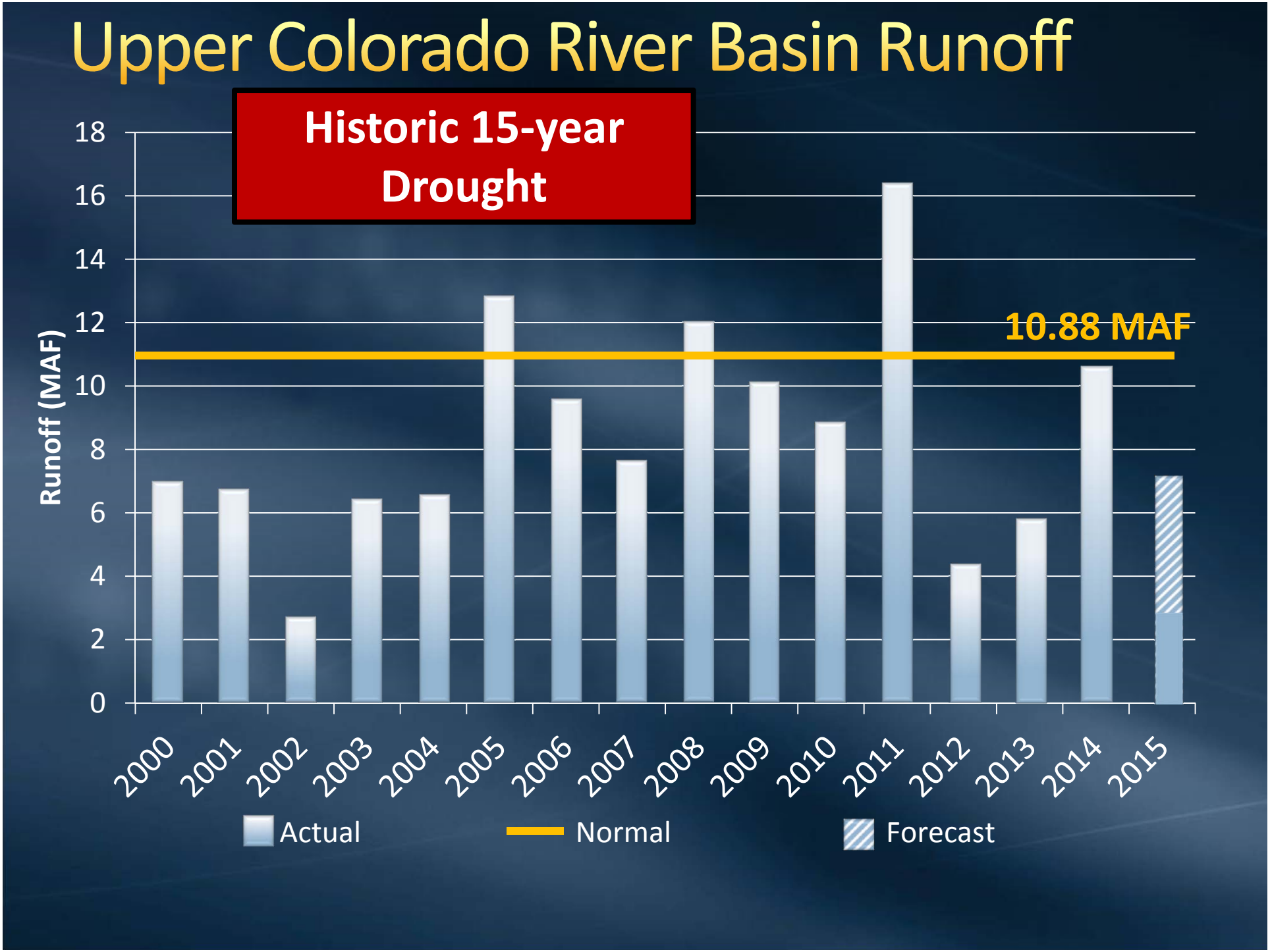
Upper Colorado Basin Snowpack



Lake Mead Storage



Upper Colorado River Basin Runoff



Impacts of Dry Hydrology on CRA

- Releases from Powell may be reduced in 2015
  - Further strains Lake Mead record-low water levels
- Stepping closer to shortage
  - Increase probability of shortage in 2016 and 2017
- Certain water management actions could be limited during or in year preceding shortage
  - Access to Lake Mead ICS Storage
  - Interstate exchanges

Water Supply Balances

DWR Assumptions

- Current Contract Supply (March 2nd)
  - 20% SWP Allocation
- Operations Study Update (March 25th)
  - Projected Dry Condition
    - 21% SWP Allocation
  - Projected Median Condition
    - 26% SWP Allocation

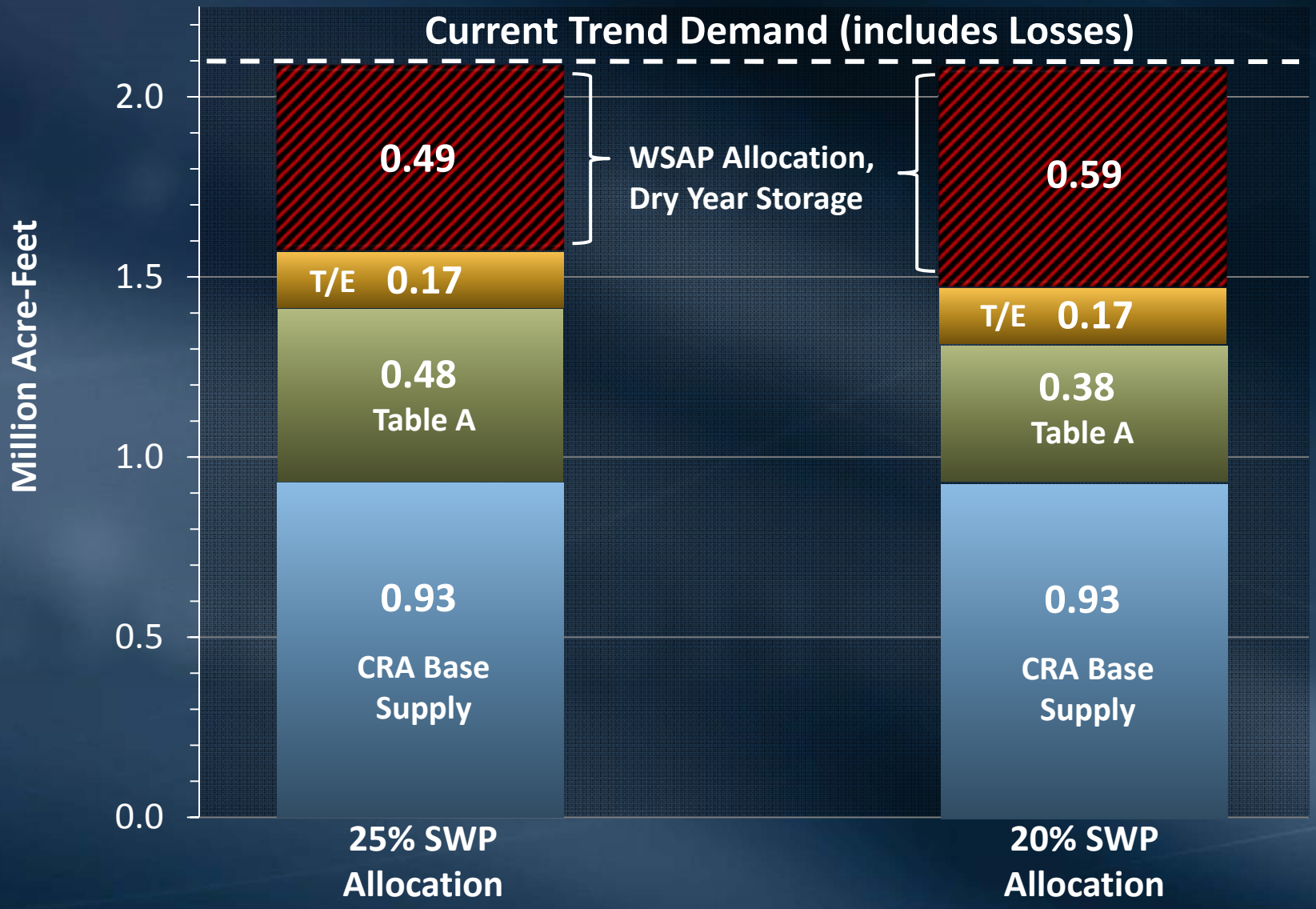
2015 Estimated Supplies

Imported Water Supplies (MAF)		
	25% SWP Allocation	20% SWP Allocation
Total CRA Supplies*	.925	.925
Total SWP Supplies**	.478	.382
WSDM Transfer/Exchanges	.165	.165
Total Supplies	1.568	1.472

* Does not include agricultural adjustments

** Does not include DWCV supplies

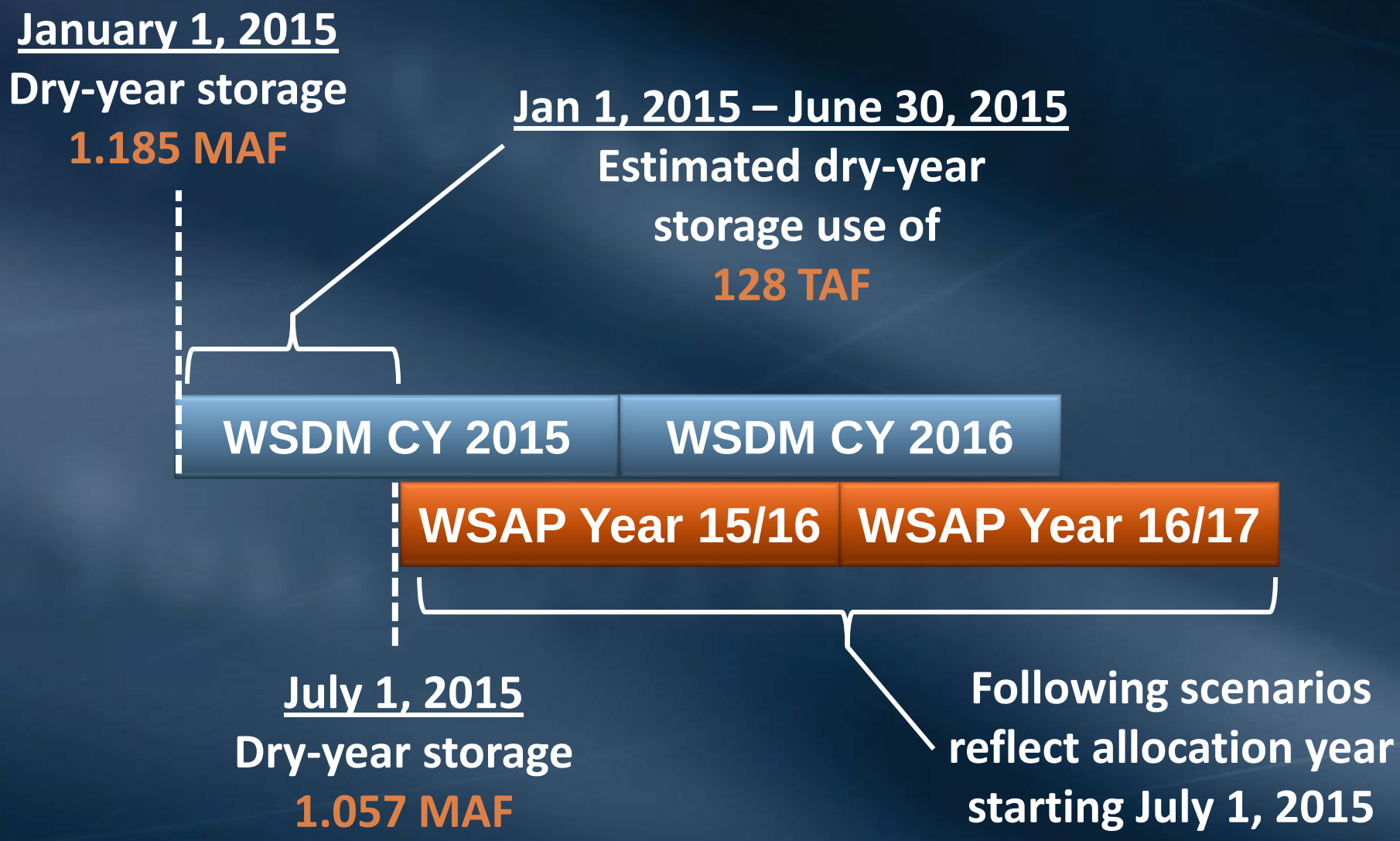
2015 Supply Demand Balances



WSAP Implementation

- WSAP sets allocation limits or levels
  - Each level represents approximately 100 TAF reduction
  - A surcharge is placed on member agency deliveries that exceed the set level
- Member agencies have over achieved in the past
  - Metropolitan estimates an aggregate reduction of 100 TAF below the set level
  - Helps balance supplies and demands and reduce withdrawals from dry-year storage reserves

WSDM vs. WSAP Reporting



Supply Demand Balances

25% SWP Allocation Scenarios

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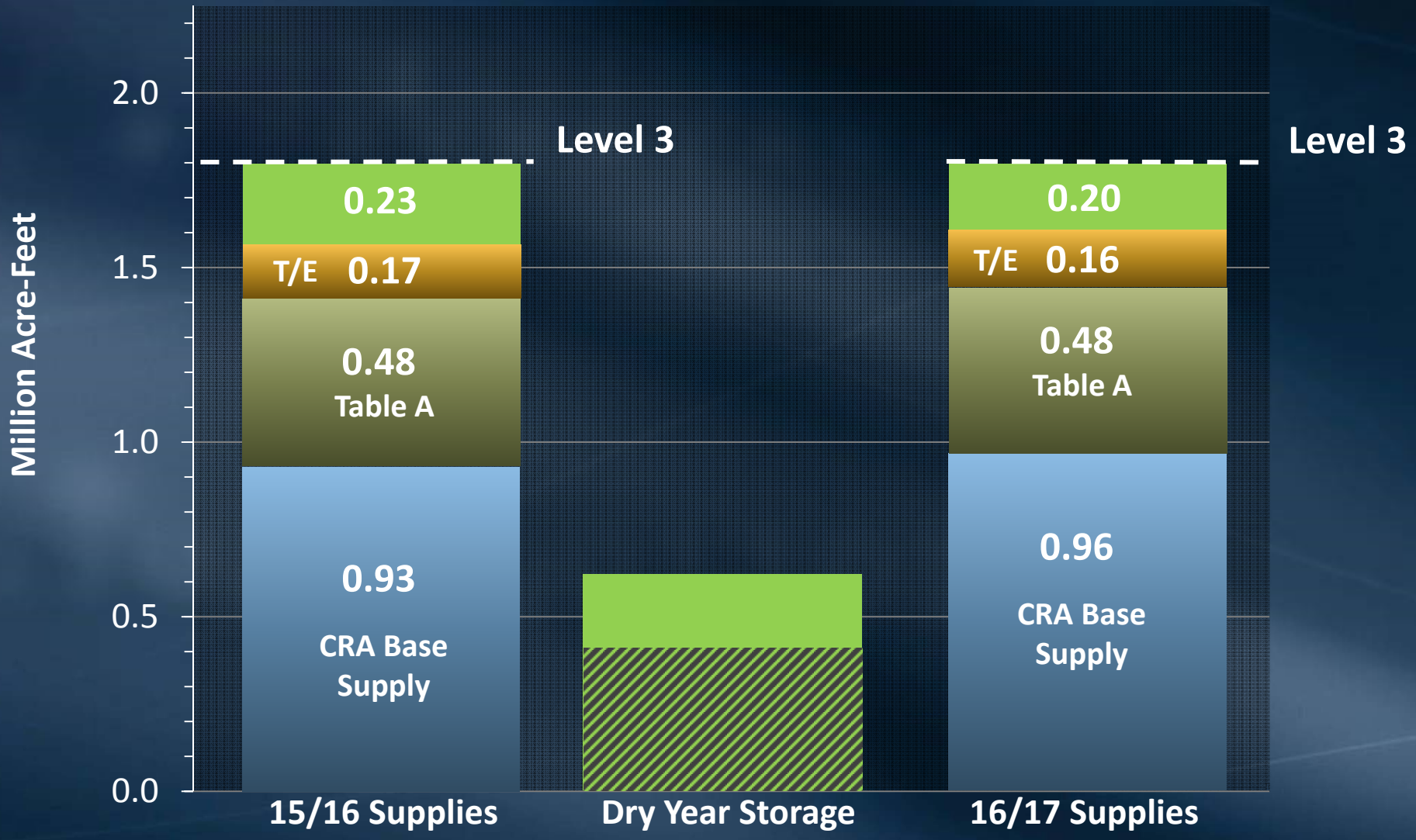

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20% SWP Allocation Scenarios

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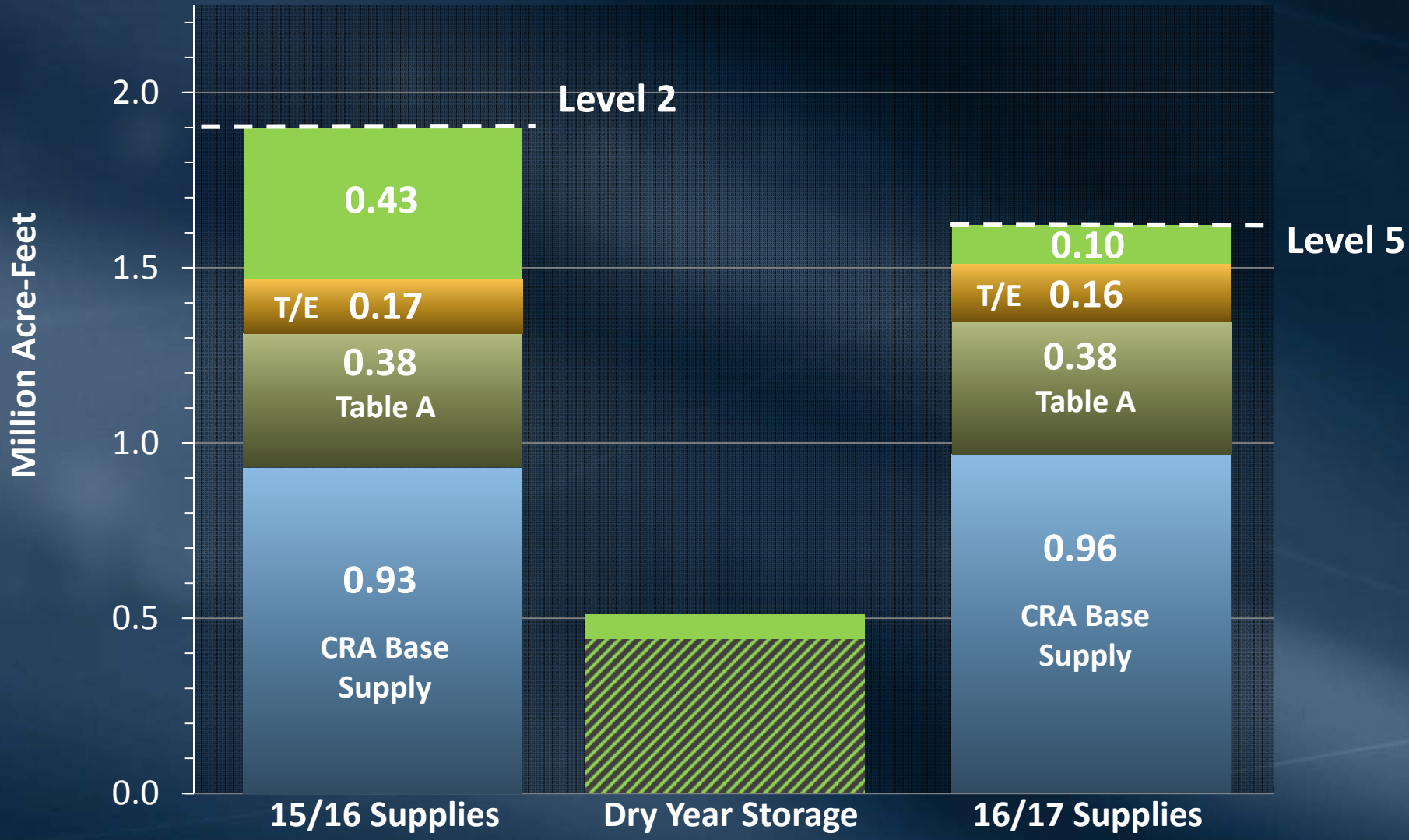

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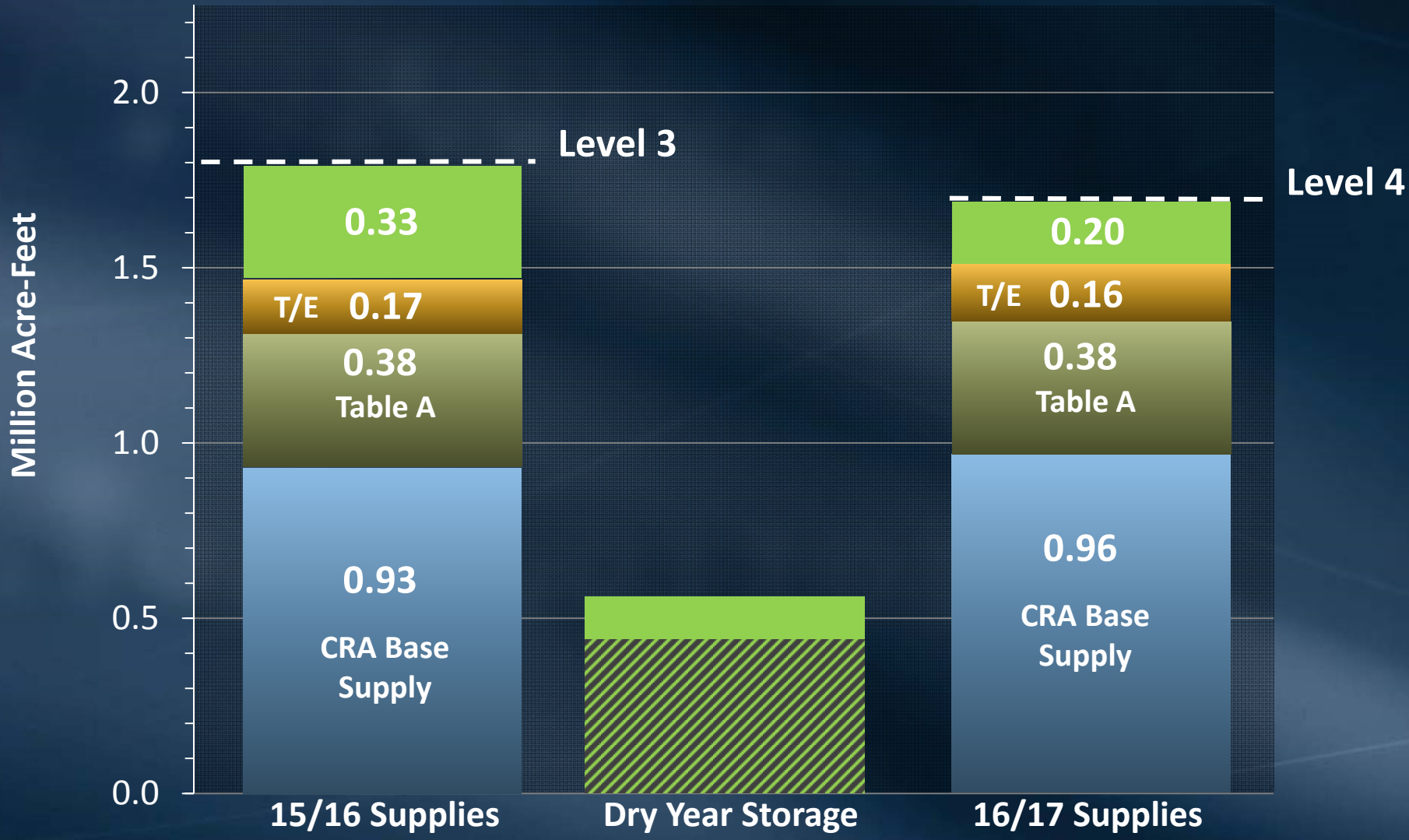

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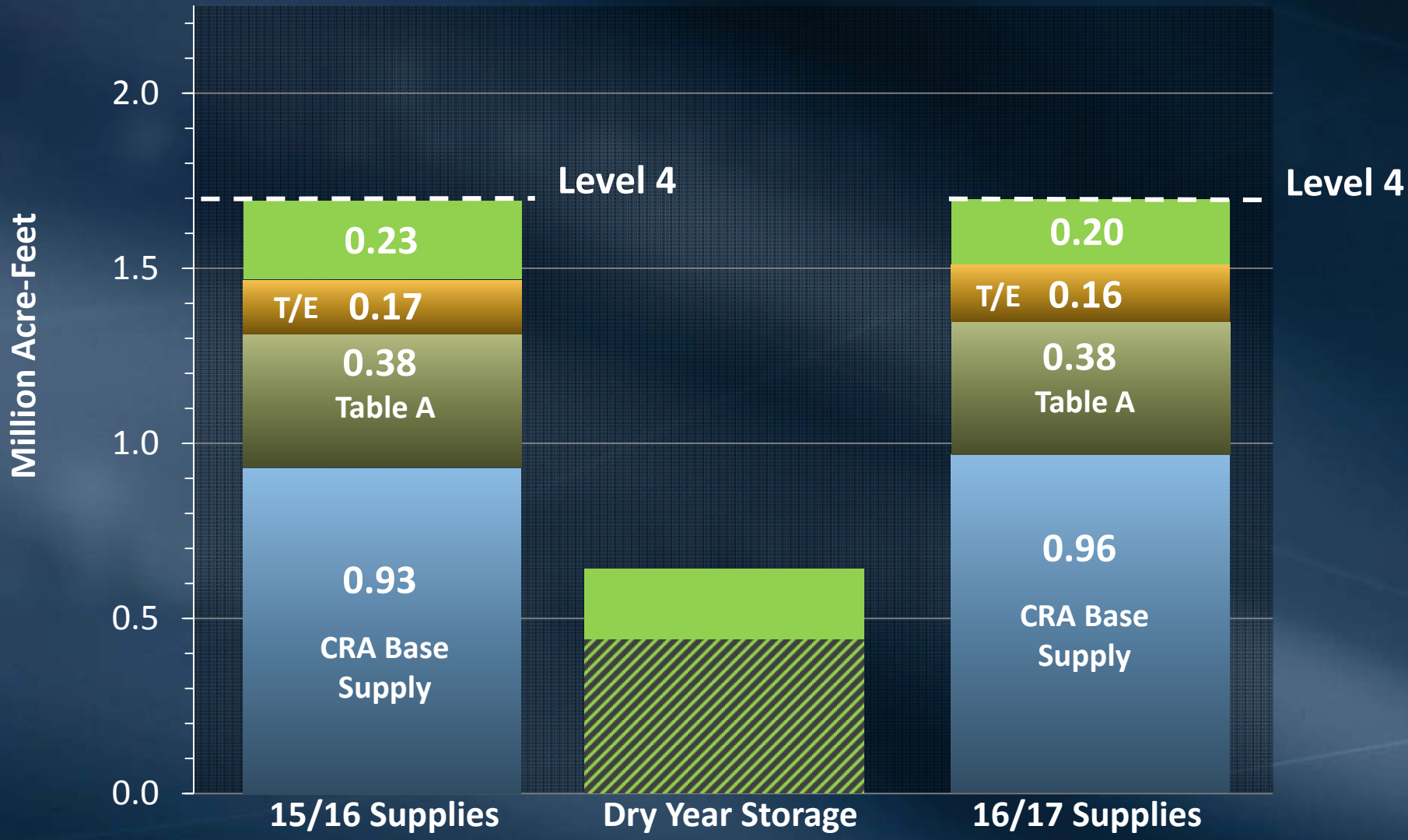

Supply Uncertainties

- Access to transfer supplies and exchanges
- Higher priority agricultural use on the Colorado River
- Potential shortage conditions on the Colorado River
- Member agency deliveries

Important Considerations

- Supporting the Governor's April 1, 2015 Executive Order
- Avoiding use of Emergency storage
- Managing storage for the following years
- Allowing for supply uncertainties
- Avoiding steep increases in WSAP levels in future years

Key Observations

- WSAP Level 3 is most balanced approach
  - WSAP Level 2 would reduce burden on member agencies, but has greater risk if supply uncertainties occur
  - WSAP Level 4 is more protective of regional storage


THE METROPOLITAN WATER DISTRICT OF
SOUTHERN CALIFORNIA
1928