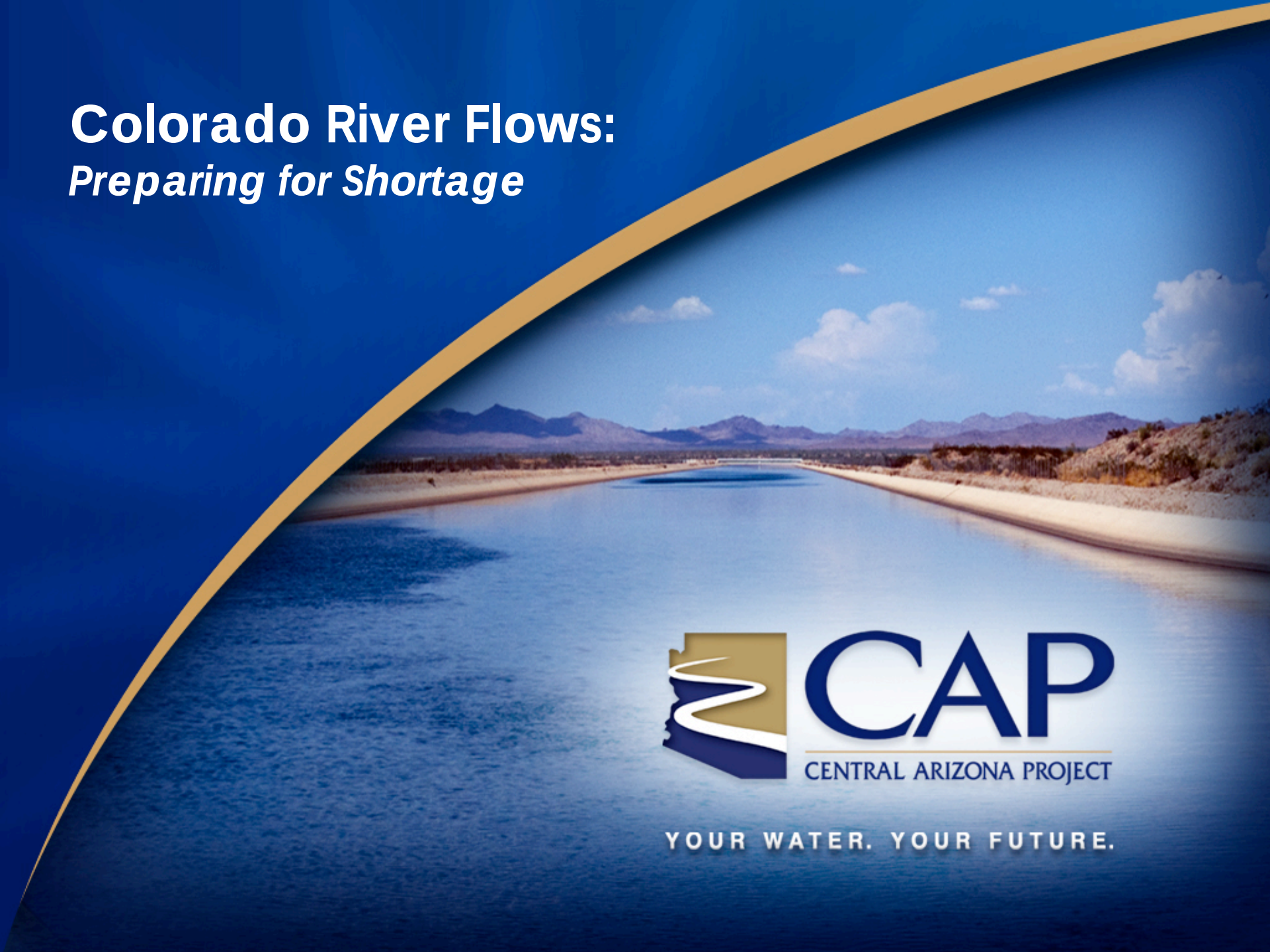
Colorado River Flows:
Preparing for Shortage



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YOUR WATER. YOUR FUTURE.

Central Arizona Project

336-mile aqueduct stretches from Lake Havasu to Tucson

14 pumping plants lift water nearly 3000 feet

8 siphons, 3 tunnels

Lake Pleasant/New Waddell Dam

Annually delivers approx. 520 billion gallons (1.6 million acre-feet)

Delivery of Colorado River water began in 1985

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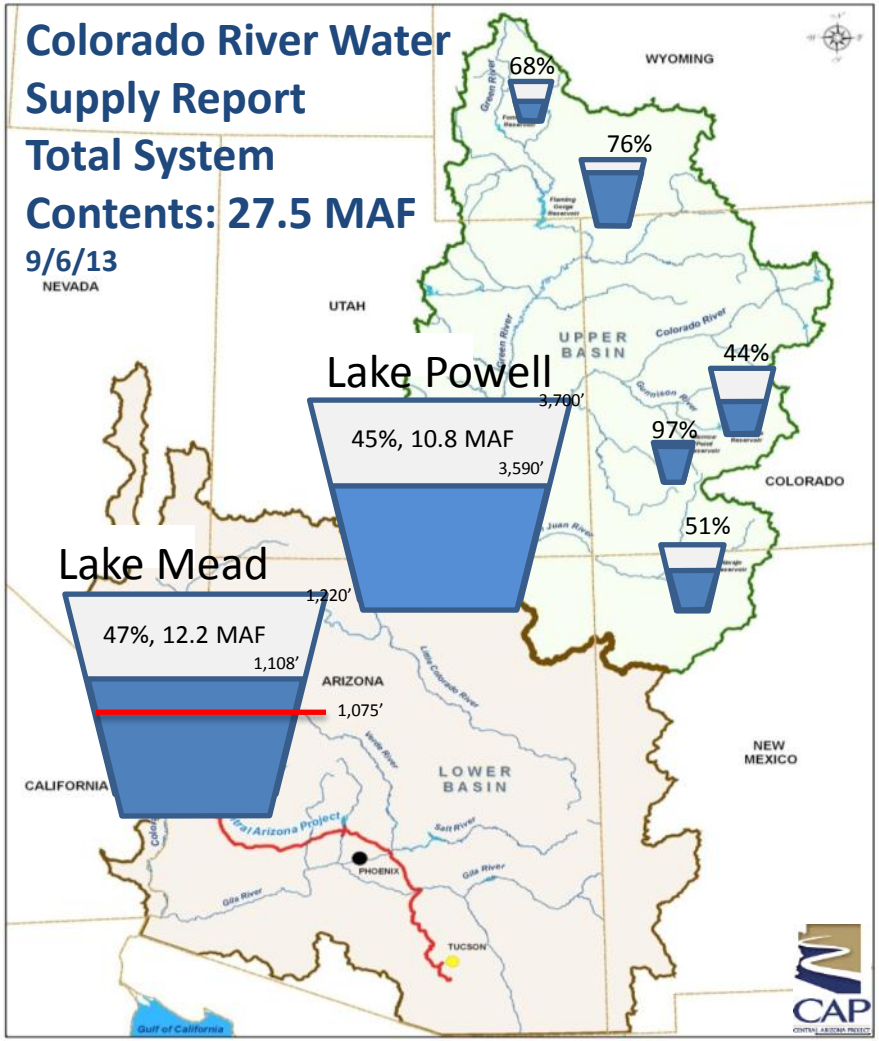
Status of the Colorado River



Current projected inflow to Lake Powell For Water Year 2013 is 4.33 maf (40% of average 1981-2010)

2012 was the 3rd Driest Year observed since 1906

Lake Mead is about 33' above first shortage trigger

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Bureau of Reclamation 24-Month Study

BOR's August 24-Month Study projected releases from Lake Powell into Lake Mead will be reduced by 9% during water years 2014 and 2015 (7.48 million acre-feet vs. 8.23 MAF)

Result - Lake Mead's elevation may fall below the 1,075 foot elevation by the end of 2015, which would trigger the U.S. Secretary of the Interior to declare a Lower Basin shortage for 2016

These projections are subject to change as the year progresses, particularly if there is a good winter snowpack in 2014 or 2015

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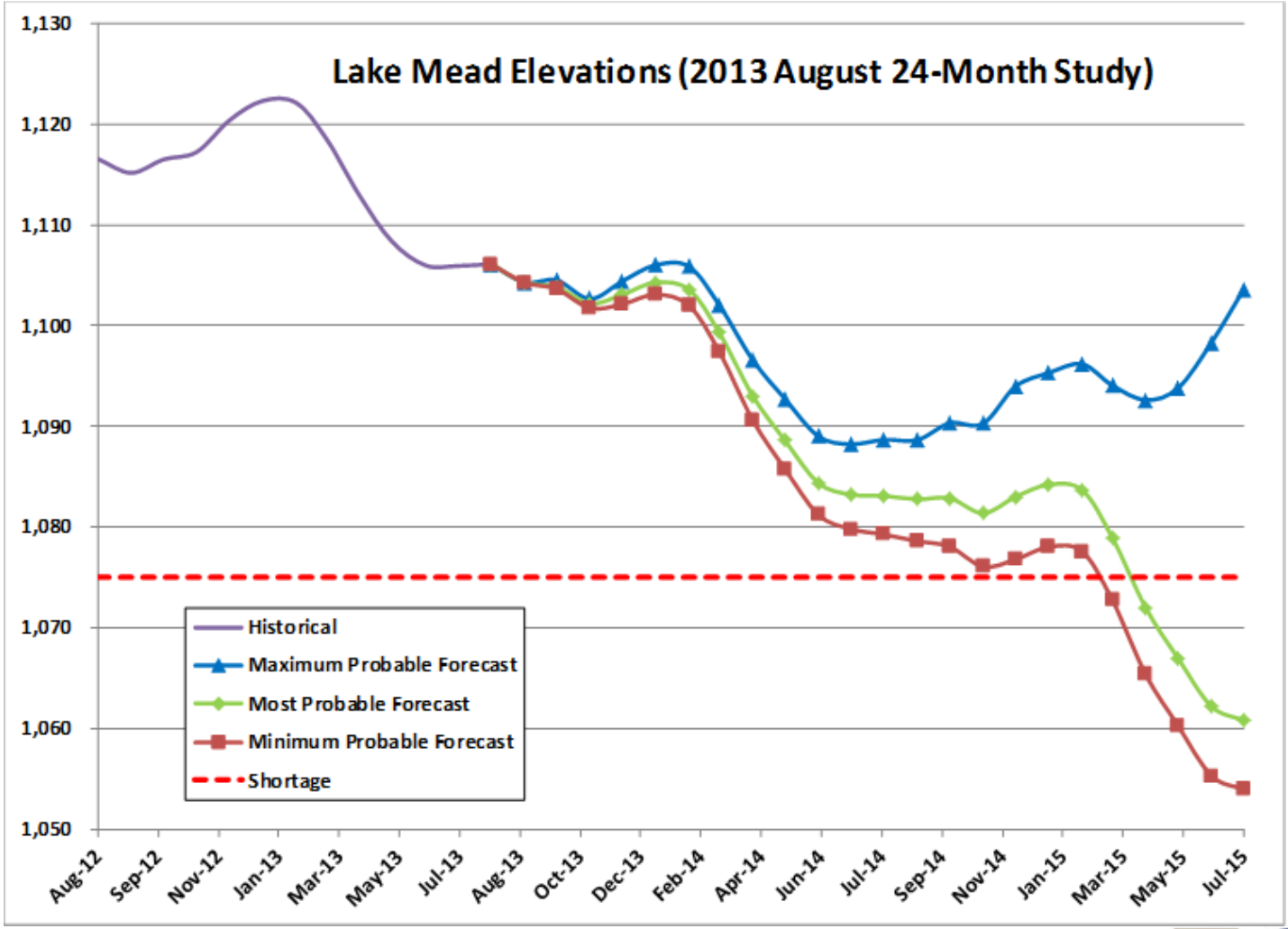
Shortage Outlook



Based on the 24-month study, the earliest likelihood of shortage is 2016.

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What Happens During a Shortage?

The Secretary of the Interior reduces the amount of Colorado River water available to Arizona and Nevada

The amount of reduction depends on the elevation of Lake Mead

Within Arizona, the reduction is primarily to CAP, with a small amount shared with other junior right holders

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AZ/NV/Mexico Shortage Sharing

Arizona, Nevada & Mexico share shortages to the Lower Colorado River

Elevation in Lake Mead	Shortage	Arizona Share	Nevada Share	Mexico Share
< 1075’	383,000 AF	320,000 AF	13,000 AF	50,000 AF
< 1050’	487,000 AF	400,000 AF	17,000 AF	70,000 AF
< 1025’	625,000 AF	480,000 AF	20,000 AF	125,000 AF

If Lake Mead is projected to fall below 1000’, the Secretary will consult with Basin States to discuss further measures

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Shortages within CAP

Within the CAP system, water is distributed based on an internal priority scheme

Long-term CAP water supply contracts share the highest priority, including:

Municipal & Industrial Customers

Native American Communities

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Shortages within CAP

The lowest priority within the CAP system is Excess Water – water not ordered under long-term CAP contracts

Excess Water has its own priority scheme

1st Priority
Non-Indian
Agricultural Users

2nd Priority
Recharge and
Other Excess Users

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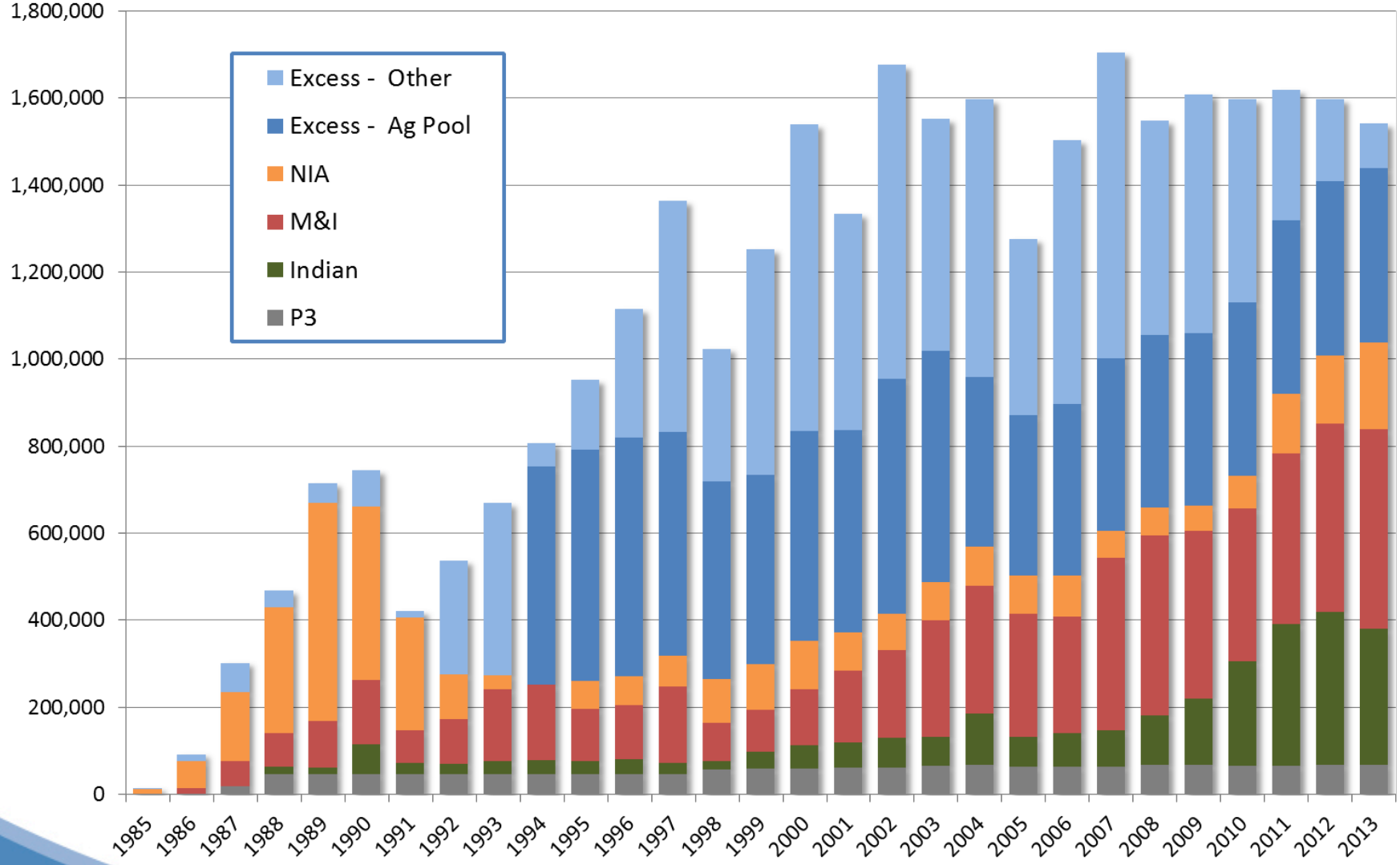
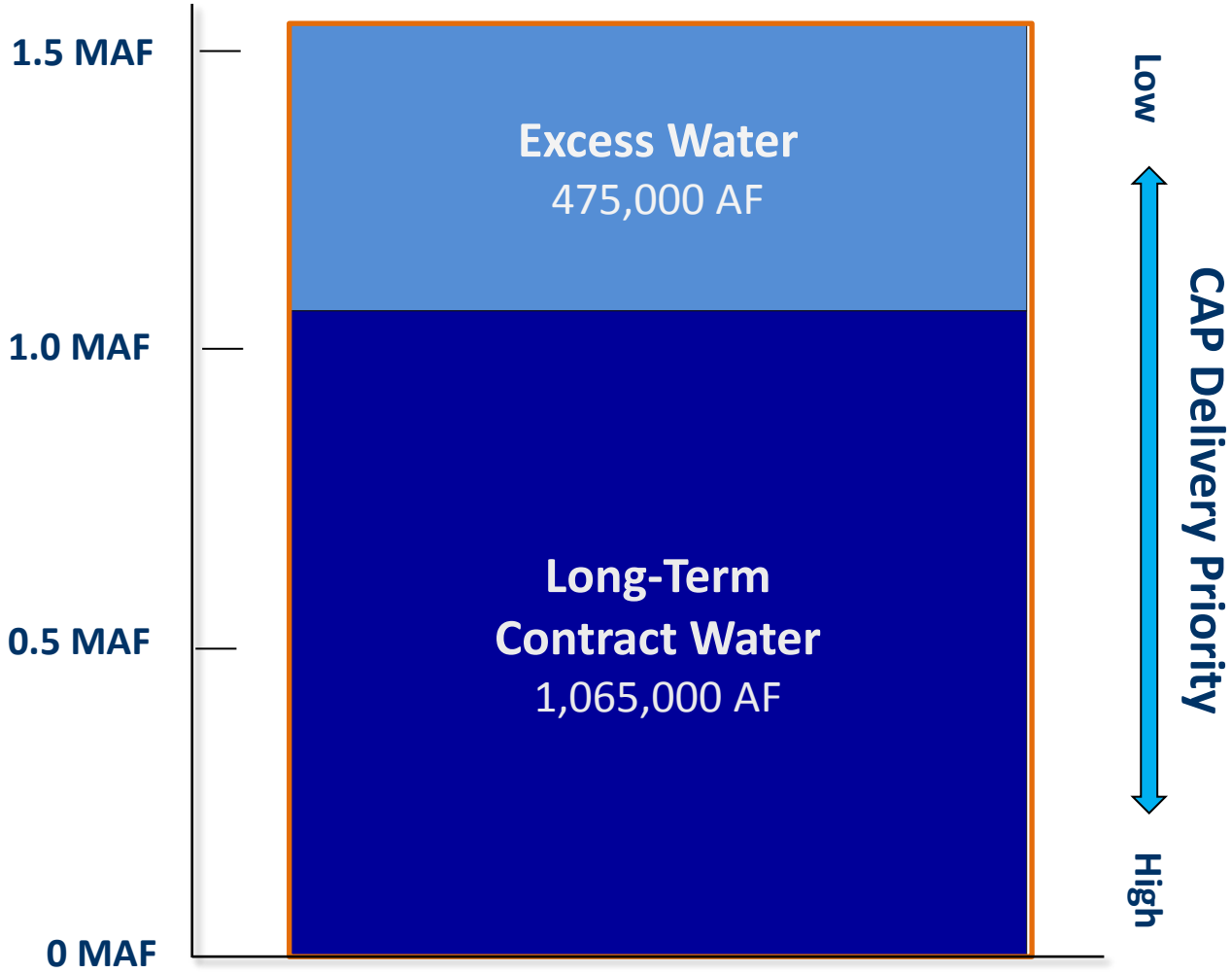
Historic CAP Deliveries



2016 CAP Delivery Schedule (Projected)



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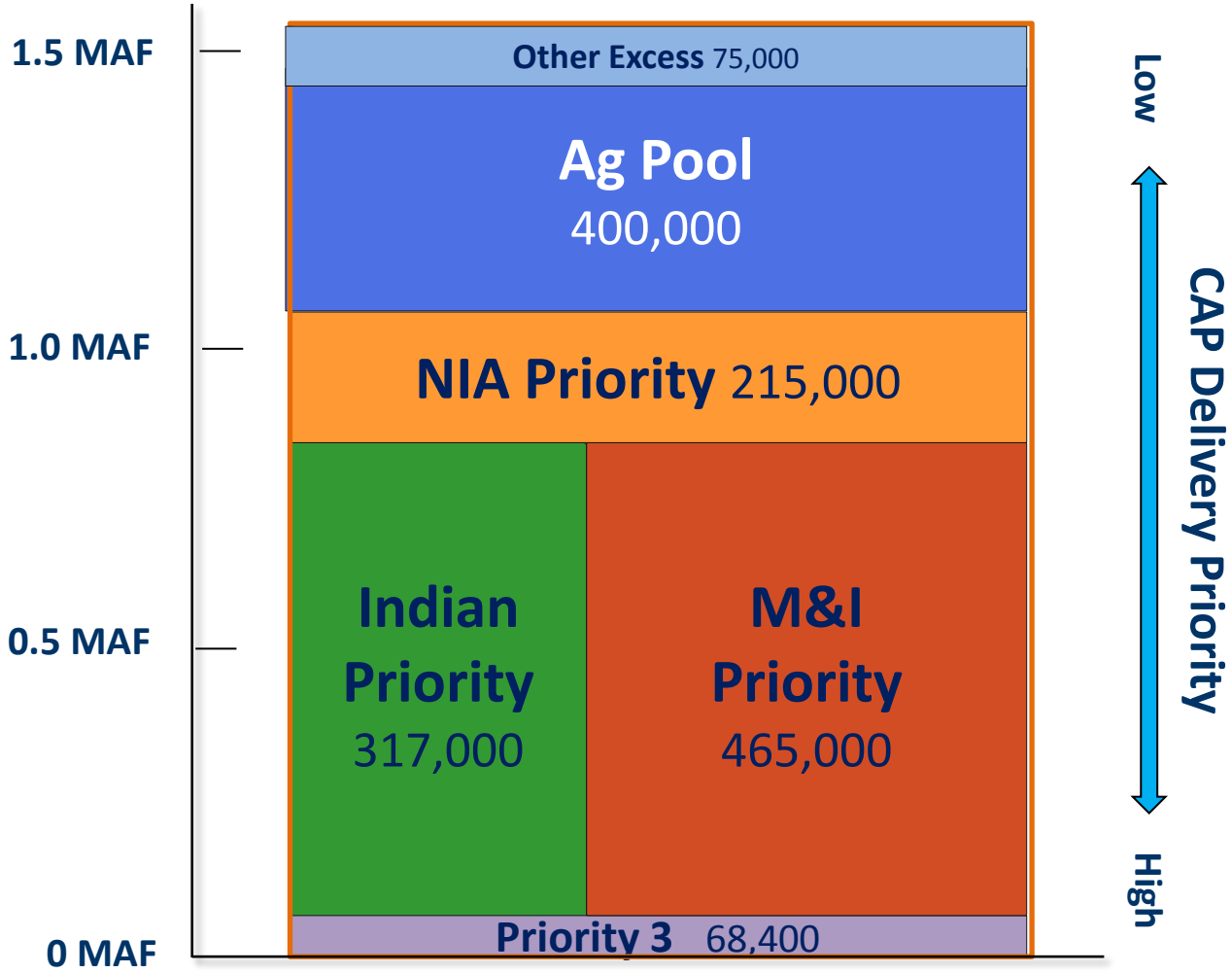
2016 CAP Delivery Schedule (Projected)



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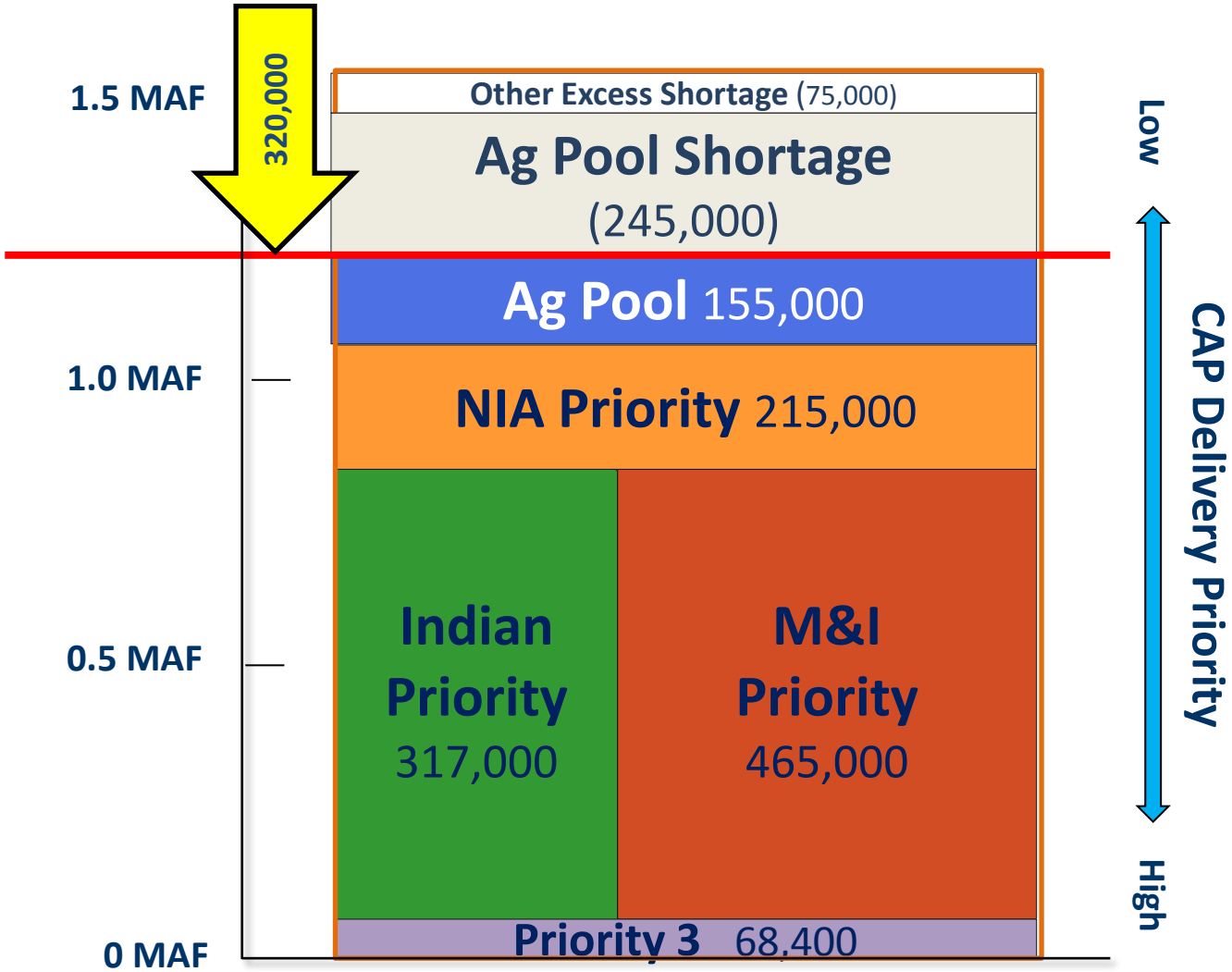
2016 Level 1 Shortage



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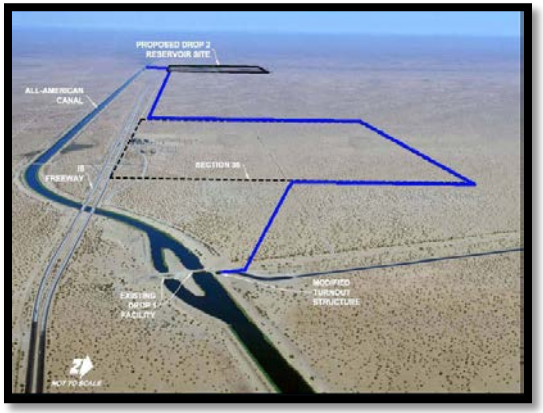
Conservation and Reducing Losses

Yuma Desalting Plant
Reduces the salts in drainage water so the water can be delivered to Mexico per U.S. treaty obligations

Brock Reservoir
Temporary storage which allows water that is ordered from Lake Mead but subsequently not used to be delivered later



Vegetation Management
Reduces non-native plants that consume river water and allows reestablishment of lower water using native vegetation

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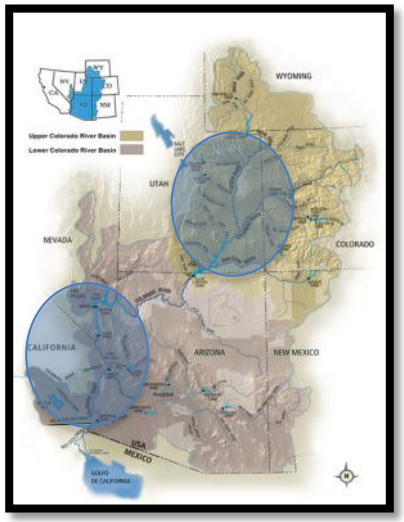
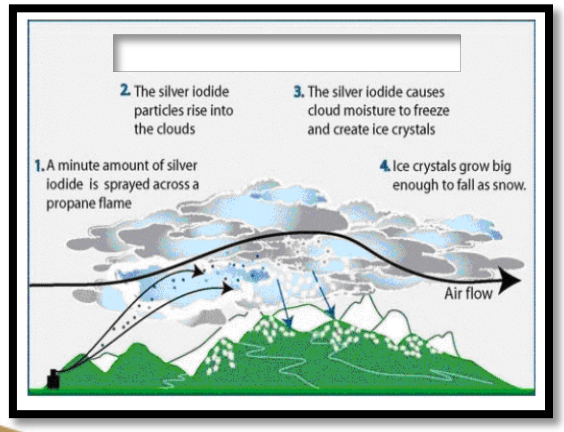
Augmenting the Colorado River

Desalinate Seawater and Brackish Water
Treatment plants in Mexico and/or California

Water Import and Exchange
Replace Colorado River uses outside of the basin (Front Range and So. Cal) with local water supplies





Increase Snowpack
Cloud seeding uses silver iodide particles to cause an increase in snowfall, increasing the snow-pack for spring run-off

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Storing Excess Colorado River Water

Nearly 8 million acre-feet have been recharged in Underground Storage and Groundwater Savings Facilities since 1992

The stored water can mitigate the impacts of shortages

CAP has been working with state agencies, customers and stakeholders to develop recovery plan in the event of a reduction in Colorado River supplies

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Questions?