

# Near-Term Risks: Options to Address Declining Reservoirs

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# 2007 Guidelines

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- Lower Basin apportionments are reduced when Lake Mead falls below specified elevations:

<u>Elevation</u>	<u>Reduction</u>
1075'	333,000 AF
1050'	417,000 AF
1025'	500,000 AF

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

# Shortage Sharing

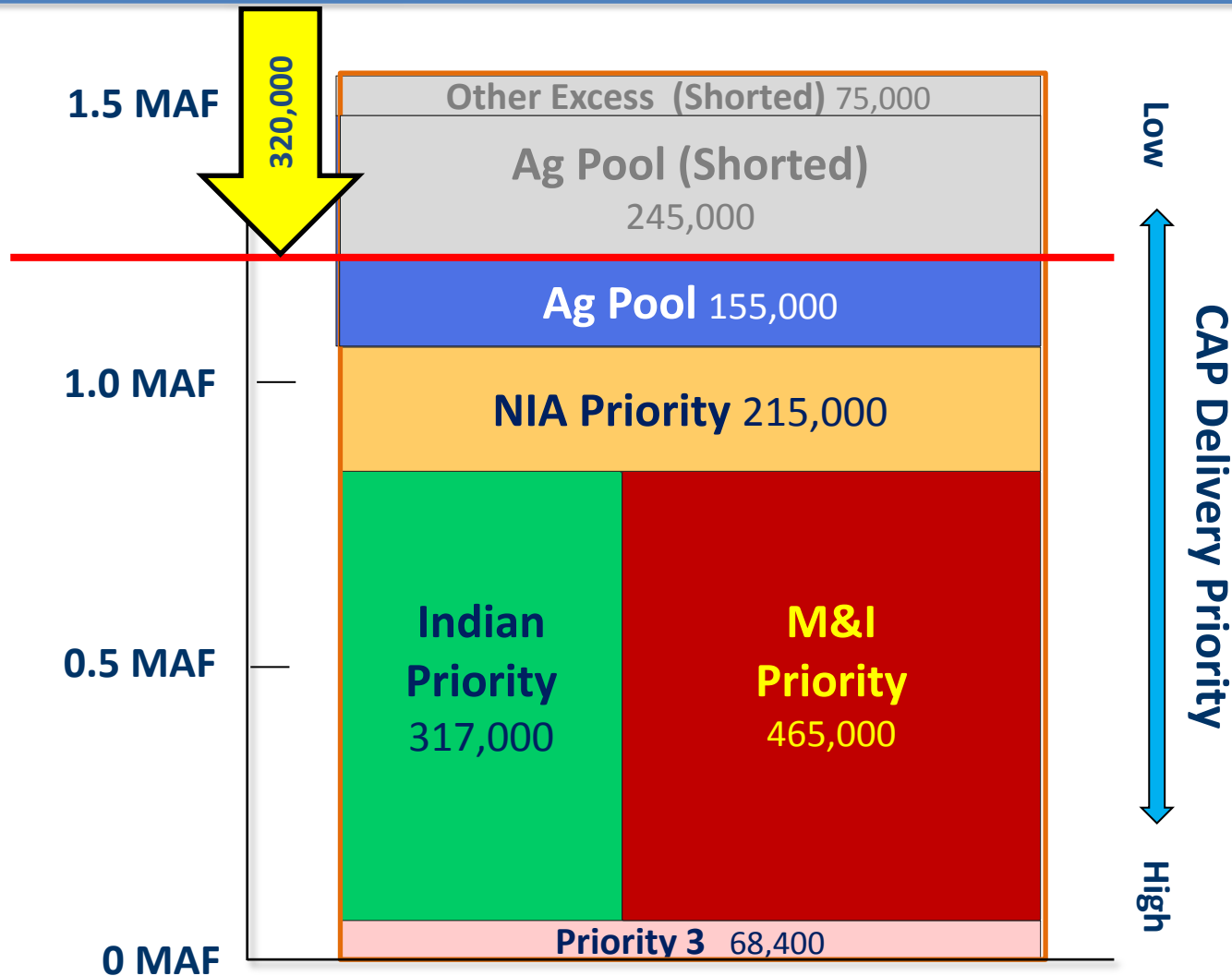
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- Arizona and Nevada share Lower Basin shortages under the 2007 Guidelines
- Mexico voluntarily agreed in Minute 319 to accept reductions in its deliveries at the same elevations

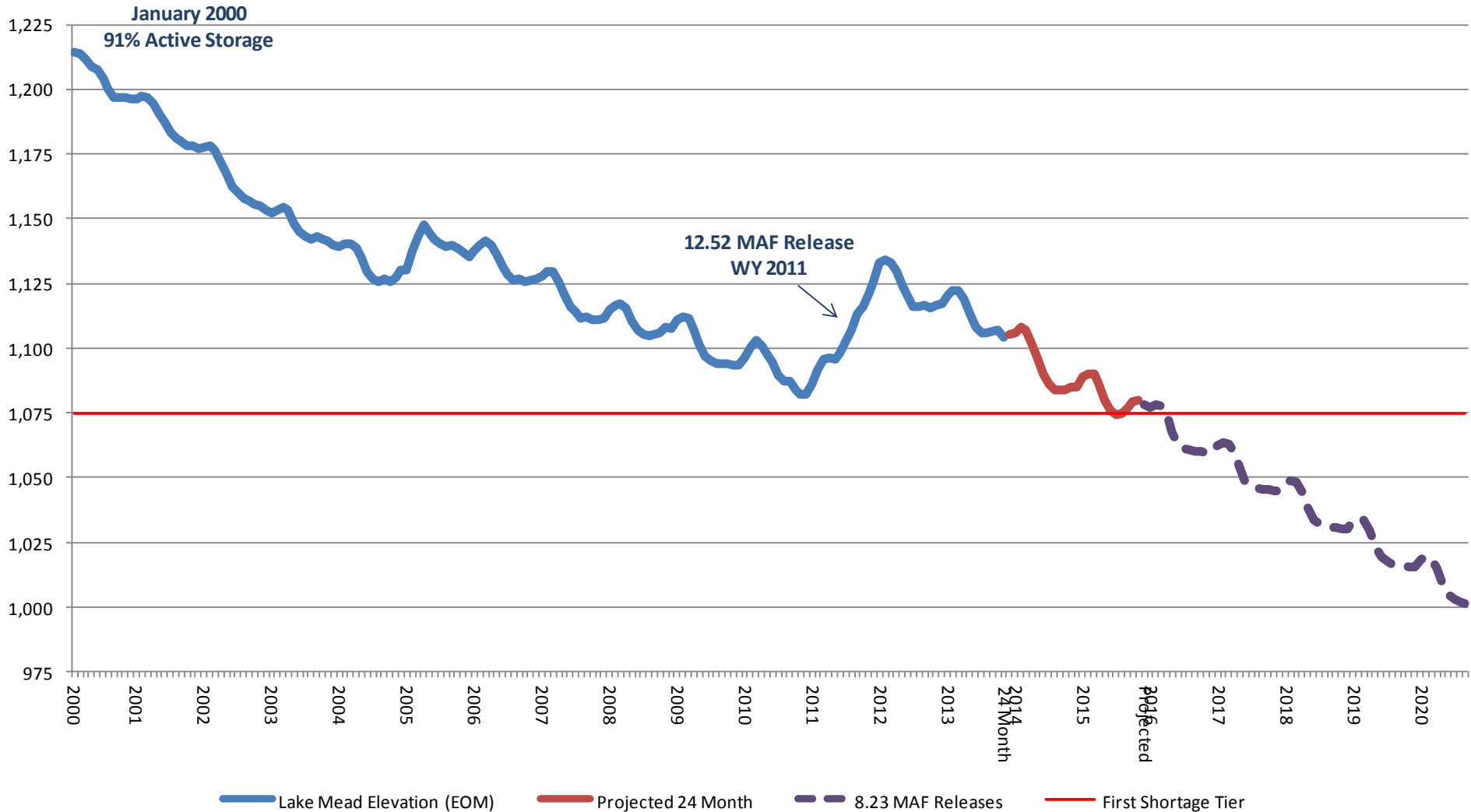
Lake Mead Elevation	Arizona Reduction	Nevada Reduction	Mexico Reduction
1075'	320,000 AF	13,000 AF	50,000 AF
1050'	400,000 AF	17,000 AF	70,000 AF
1025'	480,000 AF	20,000 AF	125,000 AF

- No reductions to California under 2007 Guidelines

# 2016 Level 1 Shortage



# Lake Mead Elevation Since 2000

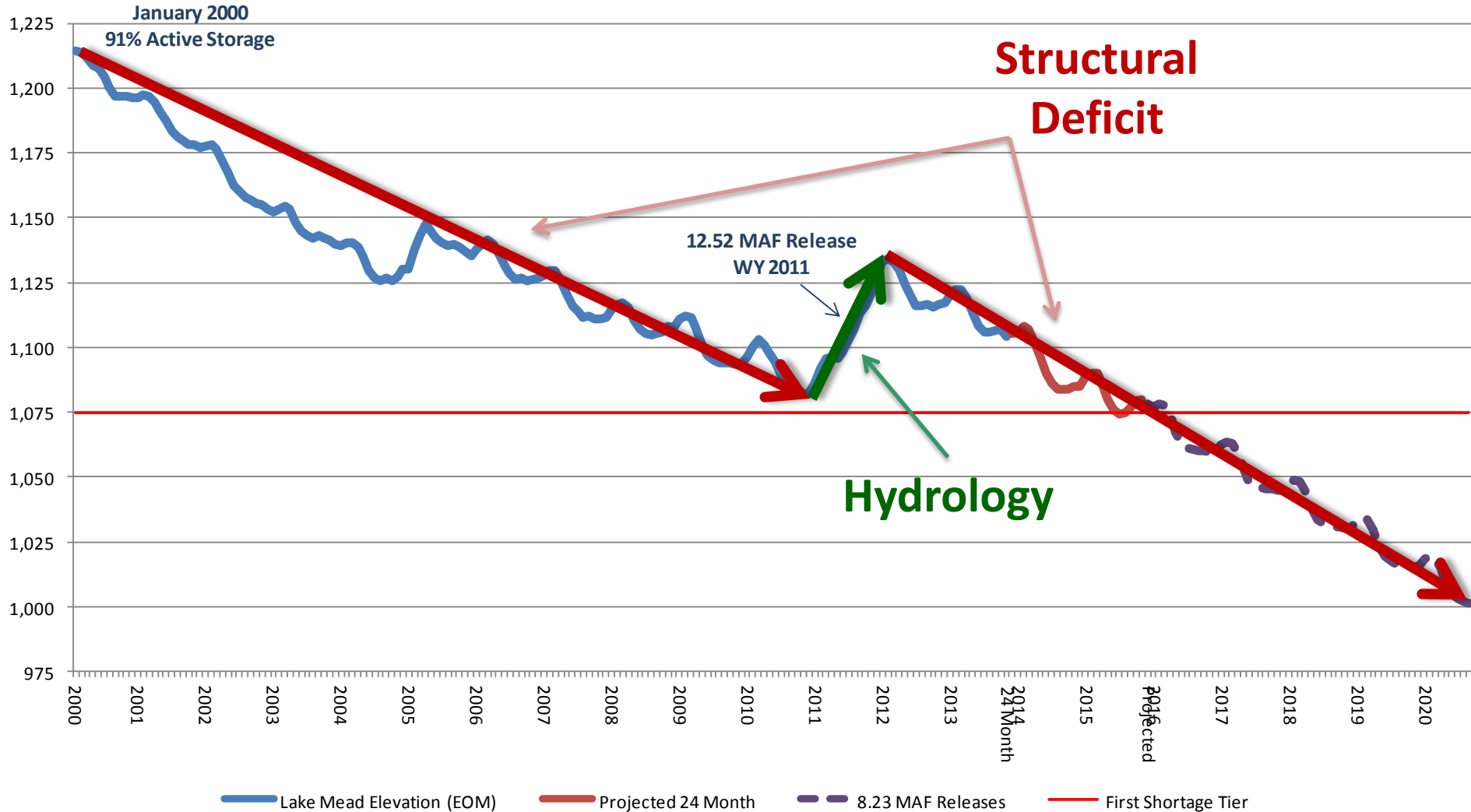


# Water Budget at Lake Mead

- Inflow = 9.0 maf  
(release from Powell + side inflows)
- Outflow = - 9.6 maf  
(AZ, CA, NV, and Mexico delivery  
+ downstream regulation and gains/losses)
- Mead evaporation losses = - 0.6 maf
- Balance = - 1.2 maf

Given basic apportionments in the Lower Basin, the allotment to Mexico, and an 8.23 maf release from Lake Powell, Lake Mead storage declines about 12 feet each year

# Lake Mead Elevation Since 2000



# Collision Course

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- Lower Basin depends on equalization releases from Lake Powell to sustain level of Lake Mead
- Upper Basin wants to maximize storage in Lake Powell to protect existing and planned uses
- Under the 2007 Guidelines, the equalization elevation goes up every year
  - By 2026, equalization will only occur when Lake Powell is at 3666' (approx. 80% full)
- Unless there is a concerted effort to “bend the curve,” it will be very difficult to reach agreement on new guidelines



# “Bending the Curve”

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- Requires significantly reducing or eliminating the structural deficit in the Lower Basin
- Benefits accrue to both Upper and Lower Basins
- Ultimately, there are only three ways to slow the decline of Upper and Lower Basin reservoirs:
  - Reduce system losses
  - Reduce demand
  - Augment supply

# Collaboration Required

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- Strong history within the basin of working together to reach agreement when needed
  - 2001 Interim Surplus Guidelines
  - 2007 Interim Guidelines
  - Minute 319
- Creative models developed to fund projects
  - Brock Reservoir
  - YDP pilot run
- Collaborative, consensus solutions are better than those imposed by administrative, legislative or judicial fiat

# Questions?



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