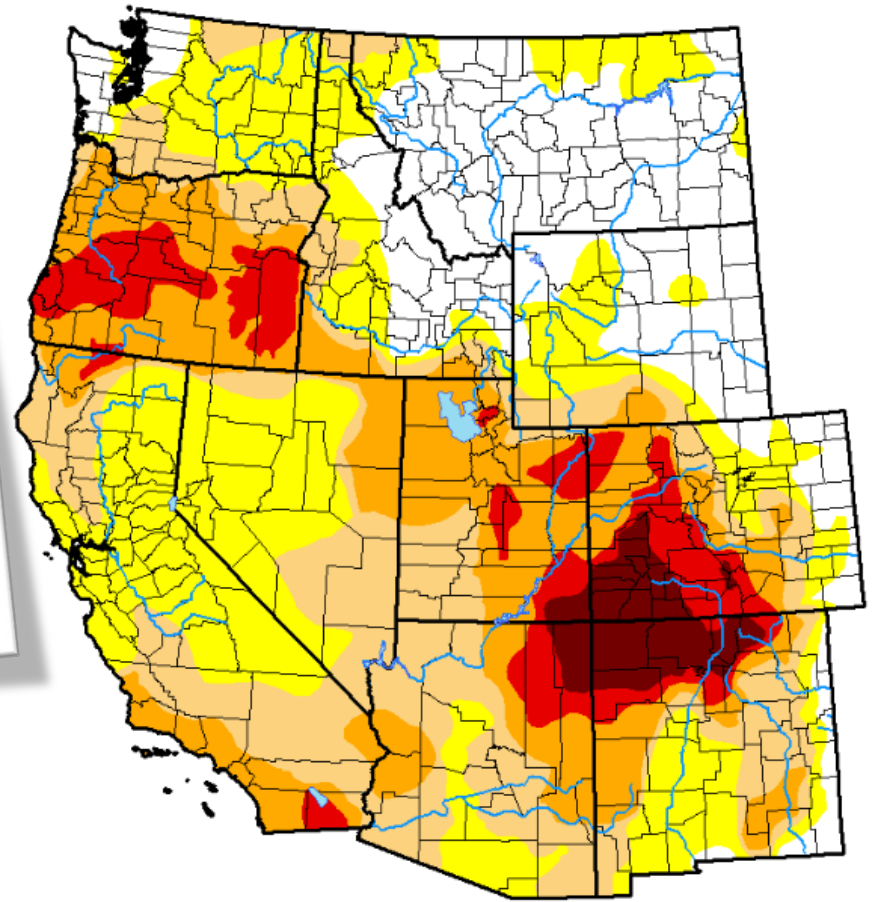
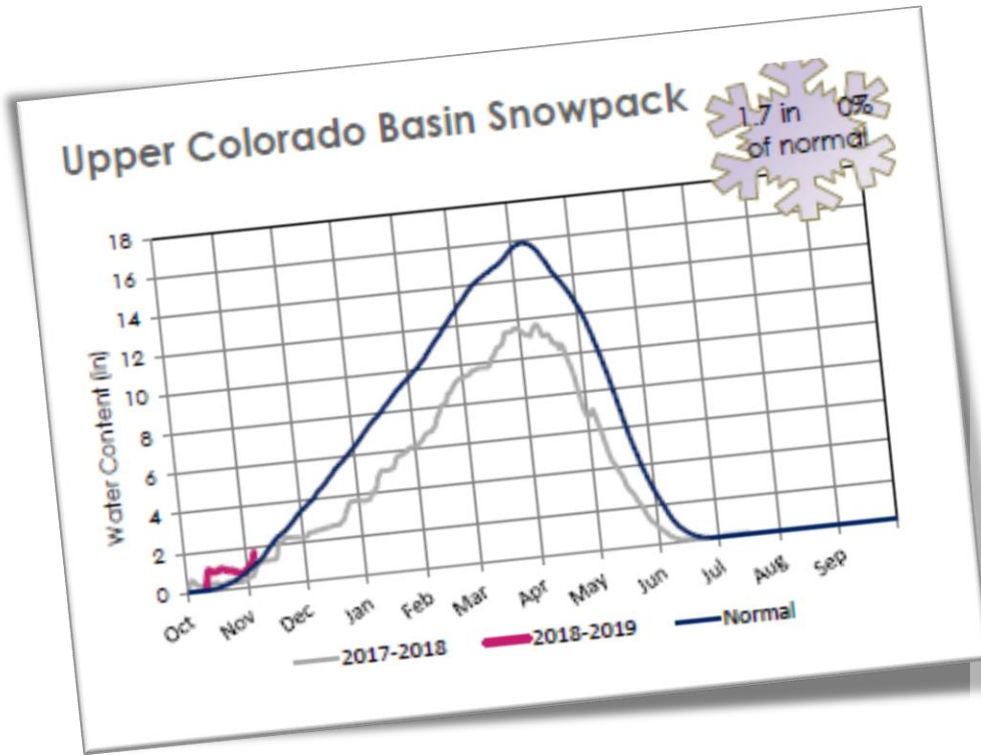

Drought Contingency Planning Process Workshop III

November 14, 2018



Photo courtesy of Bryan Flores
floresfotography.com

Colorado River Drought Monitor and Snowpack Conditions



2018



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2019-2020 Lake Powell Release Scenarios

Lake Powell			Lake Mead	
Powell WY 2019 Unregulated Inflow (% of average)	WY 2019 Release Volume (maf)	WY 2020 Release Volume (maf)	End of CY 2019 Elevation (feet)	End of CY 2020 Elevation (feet)
79% or higher	9.00	8.23 or greater	1,076	1,066 or higher
72% - 78%	9.00	7.48	1,071	1,057
66% - 72%	8.23 to 9.00	7.48	1,062 to 1,071	1,042 to 1,057
65% or lower	8.23	7.48	1,062	1,042 to 1,048

Based on scenarios developed with the October 2018 Most Probable 24-Month Study, including most probable assumptions for Upper Basin reservoir operations (Flaming Gorge, Aspinall, and Navajo) and Lower Basin water use and intervening flows in 2019 and 2020.

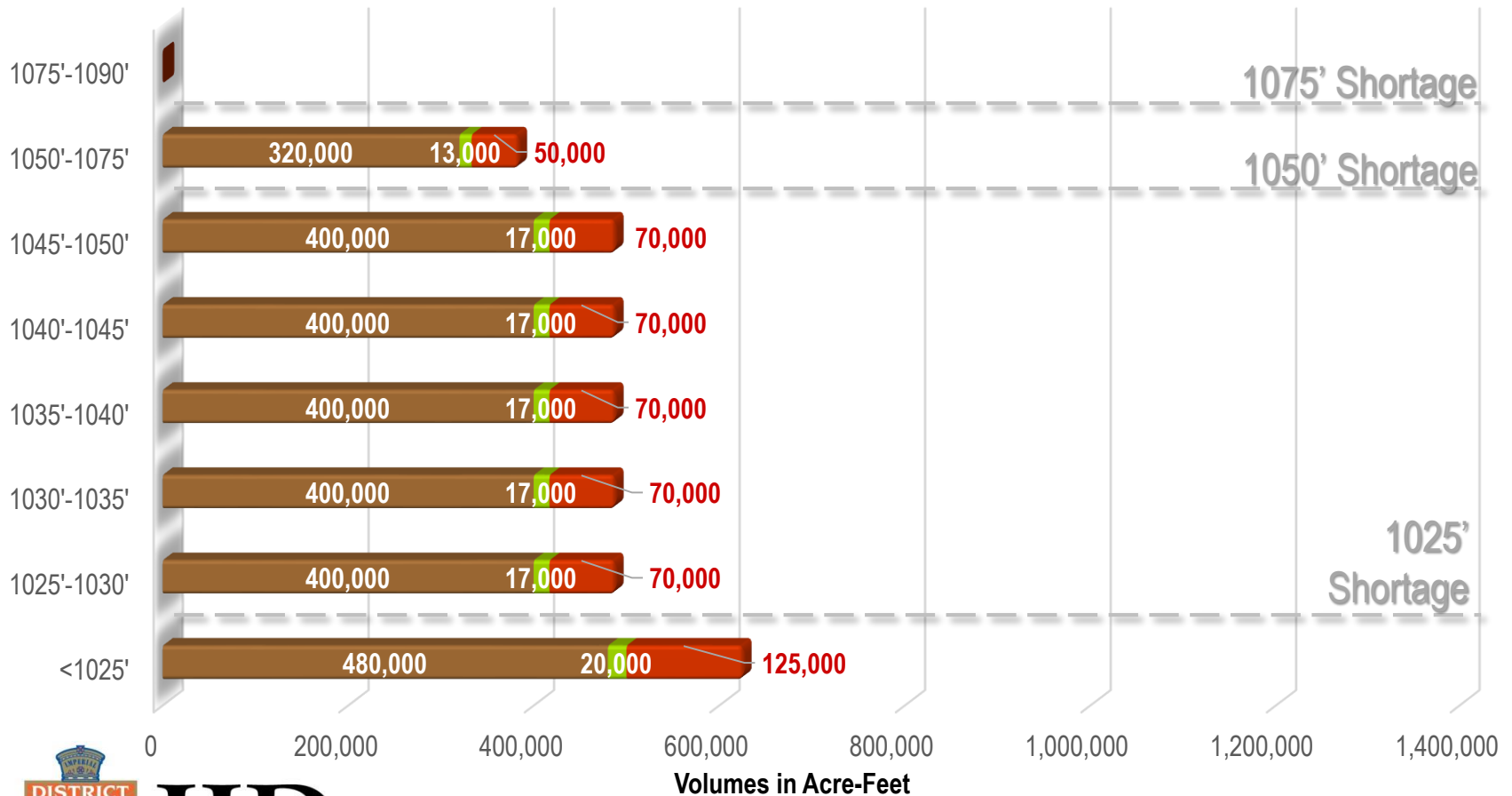


Shortage Reductions and DCP Contributions

- Elevations 1,090' to 1,075' at Lake Mead:
 - *DCP contributions only from Arizona, Nevada and Mexico*
- Elevations 1,075' to 1,045' at Lake Mead
 - *Shortage reductions only to Arizona, Nevada and Mexico*
 - *DCP contributions only from Arizona, Nevada and Mexico*
- Elevations below 1,045' at Lake Mead
 - *Shortage reductions only to Arizona, Nevada and Mexico*
 - *DCP contributions from Arizona, California, Nevada and Mexico*



Lake Mead Shortage Elevation Reductions (2007 Interim Guidelines)



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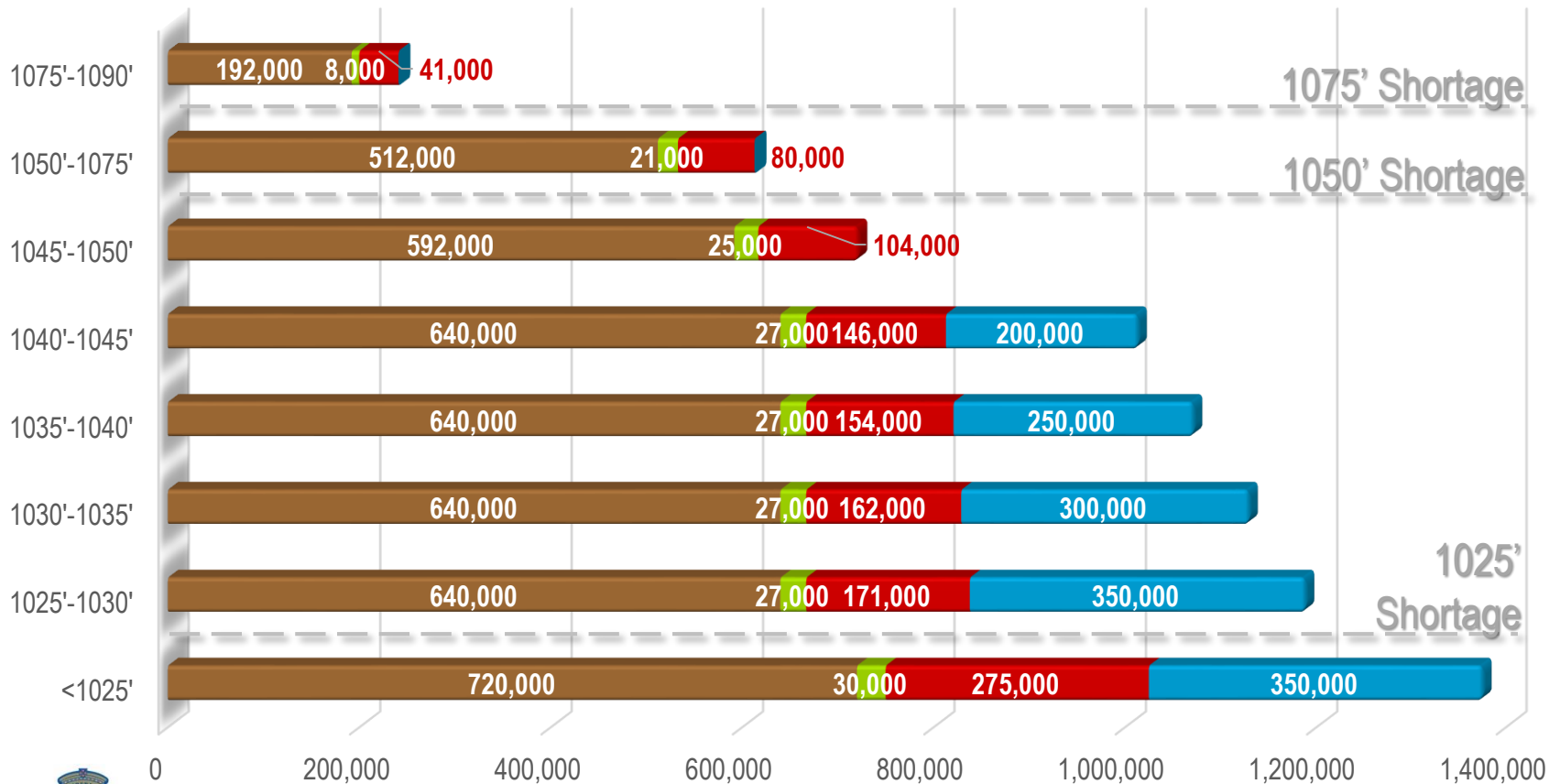
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■ Arizona 2007 ISG
 ■ Nevada 2007 ISG
 ■ Mexico Min 323

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Lake Mead Shortage Elevation Contributions

(2007 Interim Guidelines with Drought Contingency Plan Overlay)



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■ Arizona ISG+DCP

Volumes in Acre-Feet

■ Nevada ISG+DCP

■ Mexico Min 323+WSCP

■ California DCP

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Intra-California DCP Agreements

Amendment No. 2 to the California Agreement for the Creation and Delivery of Extraordinary Conservation ICS – PVID, IID, CVWD, MWD and the City of Needles

Outlines MWD, CVWD and IID's creation, accumulation and delivery limits for EC and DCP ICS authorized by the DCP and pursuant to the 2007 Interim Guidelines

- Eliminates IID's 12,000 AF cap on ICS created from seepage recovery projects
- Increases IID's ICS creation limit up to 50,000 AFY and its accumulation limit up to 350,000 AF; CVWD still cannot accumulate EC ICS
- IID may call for delivery of up to 25 percent of CA's delivery limit (up to 100,000 AFY) but must repay any of the first 250,000 AF of ICS the next year and cannot take delivery of any of the next 100,000 AF EC ICS in a year in which CA is required to make a DCP Contribution
- Under certain conditions MWD may temporarily borrow IID's ICS with return provisions
- Each agency is responsible for its own impacts and litigation costs
- Each agency agrees not to divert any ICS created under this amendment



Intra-California DCP Agreements

PVID/MWD Agreement – provides for up to 28,000 AFY of PVID DCP contributions when Lake Mead is projected to be below 1,045' (8% of California's contribution using the MWD/PVID existing following program)

CVWD/MWD Agreement – provides for up to 24,500 AFY of CVWD DCP contributions when Lake Mead is projected to be below 1,045' (7% of California's contribution)



Intra-California DCP Agreements

IID/MWD Agreement – Apportions the IID and MWD portion of California's DCP Contributions (when Lake Mead < 1,045) and establishes the terms and conditions between agencies for implementation of the Lower Basin DCP

- IID = 125,000 AFY in the first two years Lake Mead is < 1,045' (capped at 250,000 AF cumulative DCP Contribution)
- MWD = Balance of the CA DCP Contribution after CVWD and PVID contributions and any IID contribution, up to 297,500 AFY
- Exchanges IID's ICS stored in MWD's system to Lake Mead ICS storage
- Ensures each agency is responsible for its portion of CA DCP Contribution if an agency has taken delivery (borrowed) its own DCP ICS
- Gives MWD first right to fund additional Binational ICS under Minute 323 in excess of the first 109,100 AF already contracted for



DCP Operational Benefits and Limitations

Limitations

- ICS recovery restricted below 1,075'
- Limited term; uncertainty beyond 2026 as DCP and 2007 Interim Guidelines expire
- Doesn't address worst-case hydrology scenarios
- Doesn't resolve the Lower Basin "structural deficit"

Benefits

- Seven years of relative operational certainty for IID's sole water supply
- ICS operational flexibility below 1,075' (to offset IOPP suspension)
- ICS system losses capped at 10% through 2026
- Expanded ICS capacity to store excess conservation
- Increased conservation "toolbox" for ICS
- Increased Lake Mead elevations that decrease the probability of Lake Mead hitting critically low operational elevations
- Protects Powell and Hoover hydropower generation elevations
- Collaborative approach to river management, decreases likelihood of Secretarial action
- Enacts Mexico's Water Scarcity Contingency Plan

