US-MEXICO COOPERATION ON COLORADO RIVER DROUGHT

Sally E. Spener, U.S. Secretary
September 28, 2022
Colorado River Citizens Forum
1944 WATER TREATY
COLORADO RIVER

- U.S. to deliver to Mexico a volume of 1.5 maf/year
- When there are surplus waters, Mexico may receive an additional 200 kaf
- In extraordinary drought, Mexico reduced in proportion to U.S.
- Treaty does not define extraordinary drought
<table>
<thead>
<tr>
<th>Reservoir 8/9/22</th>
<th>Percent Full</th>
<th>Storage (maf)</th>
<th>Elevation (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lake Powell</td>
<td>26%</td>
<td>6.13</td>
<td>3,534.8</td>
</tr>
<tr>
<td>Lake Mead</td>
<td>27%</td>
<td>7.08</td>
<td>1041.5</td>
</tr>
<tr>
<td>Total System Storage</td>
<td>34%</td>
<td>20</td>
<td>NA</td>
</tr>
</tbody>
</table>
Snow Water Equivalent peaked at 90% of median but forecasted inflow just 63% of average

480,000 acre-feet held back to protect Glen Canyon Dam (Lake Powell)

Lake Mead operations for 2023 as if the water had been released from Lake Powell

500,000 acre-feet being transferred from Flaming Gorge Reservoir (WY) to Lake Powell.
In effect 2017-2026. Broad agreement that touches on:

- Creation of Mexico’s Water Reserve to “store” water in the US for future delivery
- Shortage reductions
- Recoverable water savings
- Water conservation and new water sources projects
- Water for the environment/habitat restoration
- Addresses flow variability in deliveries to Mexico
- Salinity

IBWC receives support from diverse stakeholders on its Minute 323 work groups
Mexico’s Water Reserve

- Allows Mexico to defer water delivery due to earthquakes, emergencies, or conservation
- Water available for subsequent delivery to Mexico
- Gives Mexico flexibility in water management

Under previous Minutes, Mexico deferred deliveries after an earthquake damaged canals.
Mexico’s Water Reserve

- Mexican storage under Minute 323 and its predecessors boosted Lake Mead elevation by 2-3 feet, helping to delay Lower Basin cuts
- Boosts Lake Mead elevation to benefit all users

Mexico has undertaken canal lining and other projects to conserve water
$31.5 M from US for projects in Mexico
Mexico derives long-term benefits from waters conserved from U.S. investment
109 kaf for U.S. water agencies, 70 kaf for environment, and 50 kaf for system storage
Consideration of future new water sources projects

U.S. entities to fund projects like canal lining.
MIN. 323 - SHORTAGE SHARING

- Principle that when one country is in shortage, the other country should be in shortage
- Annual reductions to Mexico based on 3 low elevation tiers at Lake Mead (based on August 24-month study)
- Mexico may use its stored water to offset shortage, subject to limitations.
## MIN. 323 - SHORTAGE SHARING

<table>
<thead>
<tr>
<th>Projected Jan. 1 Lake Mead elevation</th>
<th>Mexico’s Shortage Reduction</th>
<th>U.S. Lower Basin Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>At or below 1075 and at or above 1050</td>
<td>50,000 acre-feet</td>
<td>330,000 acre-feet</td>
</tr>
<tr>
<td>Below 1050 and at or above 1025</td>
<td>70,000 acre-feet</td>
<td>417,000 acre-feet</td>
</tr>
<tr>
<td>Below 1025</td>
<td>125,000 acre-feet</td>
<td>500,000 acre-feet</td>
</tr>
</tbody>
</table>

### 2023 Operations
Binational Water Scarcity Contingency Plan

- Requires water savings earlier to shore up drought-affected reservoirs
- Commitment to reduce water orders at certain reservoir elevations
- Water savings could be delivered in the future when reservoirs refill
- Based on elements of U.S. Lower Basin Drought Contingency Plan
**MIN. 323 - CONTINGENCY PLAN**

<table>
<thead>
<tr>
<th>Projected Jan. 1 Lake Mead elevation</th>
<th>Mexico’s Savings BWSCP</th>
<th>U.S. Savings DCP</th>
</tr>
</thead>
<tbody>
<tr>
<td>At or below 1090 &amp; &gt; 1075</td>
<td>41,000 acre-feet</td>
<td>200,000 acre-feet</td>
</tr>
<tr>
<td>At or below 1075 &amp; &gt; 1050</td>
<td>30,000 acre-feet</td>
<td>200,000 acre-feet</td>
</tr>
<tr>
<td><strong>At or below 1050 &amp; &gt; 1045</strong></td>
<td><strong>34,000 acre-feet</strong></td>
<td><strong>200,000 acre-feet</strong></td>
</tr>
<tr>
<td>At or below 1045 &amp; &gt; 1040</td>
<td>76,000 acre-feet</td>
<td>450,000 acre-feet</td>
</tr>
<tr>
<td>At or below 1040 &amp; &gt; 1035</td>
<td>84,000 acre-feet</td>
<td>500,000 acre-feet</td>
</tr>
<tr>
<td>At or below 1035 &amp; &gt; 1030</td>
<td>92,000 acre-feet</td>
<td>550,000 acre-feet</td>
</tr>
<tr>
<td>At or below 1030 &amp; &gt; 1025</td>
<td>101,000 acre-feet</td>
<td>600,000 acre-feet</td>
</tr>
<tr>
<td>At or below 1025</td>
<td>150,000 acre-feet</td>
<td>600,000 acre-feet</td>
</tr>
</tbody>
</table>
DROUGHT MANAGEMENT

BENEFITS OF MIN. 323

- Provides certainty for water planning, esp. in shortage
- Storing Mexico’s water in US boosts Lake Mead elevation
- Cooperation and transparency benefit all parties
- Avoids conflict

Colorado River at Morelos Dam
IBWC established a *Binational Work Group on Proactive Measures* in late 2021 to identify conservation projects in Mexico to mirror 500+ Plan in U.S. Lower Basin. Opportunities identified for:

- Effluent reuse
- Land leveling
- Drip irrigation
- Fallowing
- Canal lining

Work Group organized a binational field trip to a pilot drip irrigation site in a Yuma citrus grove.
DROUGHT MANAGEMENT
2023 AND BEYOND

- Min. 323 calls for consultations on additional measures that could be taken in light of worsening hydrology
- April 2022 meeting in Mexico City conveyed seriousness of the drought to Mexican leaders
- Reclamation briefed Mexican officials on need to conserve more water to protect the dams
IBWC press conference in Mexicali highlighted the drought and water reductions

Expectation of a post-2026 Minute to address drought management and other cooperative actions

Reclamation has additional funds that could be invested in water conservation in Mexico to benefit system storage

August 16, 2022 press conference in Mexicali
Mexico has identified a need for additional funds for project development.

IBWC will continue to convene US-Mexico dialogue on drought management strategies.

Mexico City Meeting held to discuss Colorado River drought.