UPDATE ON MINUTE 323 ON U.S.-MEXICO COLORADO RIVER COOPERATION

Sally Spener, U.S. Secretary
January 19, 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
- U.S. has always met its delivery obligation
Minute No. 318 (2010) allowed Mx to store water in the US until it could fix earthquake damage.

Min. 319 signed in 2012 as a 5-year pilot project for Colorado River cooperation.

Min. 323, signed Sept. 2017, expands and extends Min. 319 actions through 2026.

Min. 319 signing in San Diego, CA as Interior Secretary Salazar looks on.
Established multiple work groups with 200 members:

- Minute Oversight Group
- Hydrology
- Projects
- Desalination
- Salinity
- Flow Variability
- Environment
- All-American Canal
- System Operations

U.S. work group members include federal, state, NGO, water utility, academic, & irrigation district partners
MIN. 323 – WATER RESERVE

**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 various Minutes boosted Lake Mead elevation by 2-3 feet, helping to prevent mandatory cuts in the Lower Basin.
- Boosts Lake Mead elevation to benefit all users.

Mexico has undertaken canal lining and other projects to conserve water.
MIN. 323 – WATER SHARING

- Provides additional Colorado River water to Mexico during high elevation reservoir conditions

Hoover Dam
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>At or below 1050 &amp; &gt; 1045</td>
<td>34,000 acre-feet</td>
<td>200,000 acre-feet</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>
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

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>
Hydrology Work Group

- Technical experts from both countries
- Data exchange, modeling, and analysis
- Analyze the impact on reservoir levels from meeting system demands, drought, increased temperatures, etc.
$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.
MINUTE 323 – RECENT ACTIVITIES

- 40+ work group meetings 2020-2021
- Virtual meetings during the pandemic
- US-Mexico news release in August 2021 of first-ever reductions in 2022
- Oct. 2021 briefing on Lower Basin’s “500+ Plan”
- Agreement to form a US-Mexico work group to discuss potential proactive measures in light of projected decreases in Lake Mead elevation
- Binational Work Group on Proactive Measures meets monthly
MINUTE 323 – RECENT ACTIVITIES

Projects

- Canal rehabilitation
- Rehabilitation and installation of metering equipment in the irrigation district
- Modernization and automation of irrigation canal head gates
- 36,367 acre-feet transferred to U.S. funders to date
- 35,000 delivered as U.S. share of water for the environment

Monitoring environmental water deliveries.
Phase 1 feasibility study for a binational desalination plant in the Sea of Cortez completed May 2020

Study determined the project is feasible

Considers up to 200,000 acre-feet/year

Cost about $2,000 USD per acre-foot

Phase II study scope of work has been drafted and is under review

Power supply, right-of-way, water exchange mechanism require analysis
MINUTE 323 – RECENT ACTIVITIES

Environmental Implementation

- 290 acres restored (+ 1214 acres in Min. 319)
- 164 days of uninterrupted river flow in 2021
- 2021 environmental flow benefits:
  - Groundwater conditions optimal for vegetation at restored habitat sites
  - Open water habitat for birds
  - Flows through lower delta and estuary
  - Groundwater recharge

Photo credit: Claudio Contreras Koob, Audubon
Binational Work Group on Proactive Measures (PM) tasks:

- Review forecasts through 2026.
- Review critical Lake Mead thresholds and **water supply impacts** at various thresholds.
- Review and evaluate initial actions being undertaken in the US (the 500+ Plan).
- Consider the means to **accelerate Minute 323 investments in conservation projects** in Mexico to maximize creation of Mexico’s Water Reserve in 2022 and 2023.

Modernization of Mexico’s irrigation infrastructure conserves water.
PM Work Group tasks:

► Review and evaluate potential conservation actions, including fallowing, that would result in additional water conservation thru 2026.

► Explore actions to benefit Lake Mead.

► Identify obstacles and strategies to overcome them.

► Consult with the binational coalition of NGOs regarding potential funding for water conservation projects.
PM Work Group task – develop recommendations for:

► Creation of **additional water for Mexico’s Water Reserve** in 2022 and 2023 to complement the additional actions being developed in the US.

► **Funding** for additional **water conservation projects** in the US and Mexico.

► Communications strategies regarding the need for additional conservation in the US and Mexico.

A US-funded canal encasement project in Mexico was completed under Min. 319 to conserve water.