



- Board of Directors
Water Planning and Stewardship Committee

12/9/2014 Board Meeting

9-1

Subject

Overview of proposed memorandum of understanding for Colorado River-related pilot drought response actions

Executive Summary

Metropolitan, the United States Bureau of Reclamation (Reclamation), Southern Nevada Water Authority (SNWA), Central Arizona Water Conservation District (CAWCD), Colorado River Board of California (CRB) Colorado River Commission of Nevada (CRCN), and the Arizona Department of Water Resources (ADWR) have developed pilot drought response actions to reduce the potential for Lake Mead to reach critical elevations. These potential actions have been memorialized in a proposed memorandum of understanding (MOU). Implementation of the MOU would reduce the potential for Lake Mead's elevation to decline to levels that would have critical impacts to water and power users over the next five years.

Description

Background

Due to prolonged drought conditions, Lake Mead storage has dropped to 40 percent of capacity, and currently stands at elevation 1,083 feet. In accordance with the Department of the Interior's (DOI) December 2007 Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead, the amount of Colorado River water available to Arizona and Nevada will be reduced in increasing amounts when Lake Mead declines to elevations 1,075, 1,050, and 1,025 feet. When Lake Mead is below 1,025 feet, the Secretary of the Interior would consult with the Colorado River Basin states to determine if additional actions can be implemented to reduce the probability of Lake Mead going below 1,000 feet. If Lake Mead were to fall below that level, the ability of SNWA to divert water out of Lake Mead would be significantly curtailed. In 2007, computer modeling by DOI indicated that the probability of Lake Mead falling below 1,000 feet during the Interim Period (through 2026) was less than 1 percent; recent projections now indicate that the chances of Lake Mead falling to 1,000 feet by 2019 is more than 5 percent.

With the increased potential of Lake Mead falling to 1,000 feet, representatives of DOI, the states of Arizona, California, and Nevada, and a number of water users in those states participated in a series of meetings to develop drought contingency concepts for the next five years. The concepts focused on efforts to increase the amount of water in storage in Lake Mead through reductions in Colorado River diversions, system augmentation, Intentionally Created Surplus (ICS), and system conservation. Targets for increasing the amount of water in storage in Lake Mead from 2015 through 2017 were proposed—Arizona, 345,000 acre-feet; California, 300,000 acre-feet; Nevada, 45,000 acre-feet; and DOI, 50,000 acre-feet. Representatives of DOI, Metropolitan, SNWA, CAWCD, CRB, CRCN, and ADWR have drafted a proposed MOU which reflects these goals to reduce the potential for Lake Mead's elevation to decline to critical levels within the next five years.

Proposed MOU for Pilot Drought Response Actions

Execution of the proposed MOU memorializes the goals for reducing the likelihood of reaching critical elevations in Lake Mead. Metropolitan would use best efforts to create 300,000 acre-feet of water in Lake Mead for the dual purpose of providing short-term drought relief in California and longer-term benefits to Lake Mead.

Metropolitan, working with other California Colorado River Contractors, would pursue new conservation projects that would be available to meet Metropolitan's short-term water supply needs and later be stored in Lake Mead when local drought conditions ease. The proposed MOU specifies that Metropolitan will need flexibility during low Colorado River reservoir conditions to meet its goal. Funding of any projects would require agreements that would be brought to the Board for consideration.

CAWCD's best efforts to increase the amount of water in storage by 345,000 acre-feet may include intentionally creating Colorado River system water. Also, CAWCD anticipates creating Extraordinary Conservation ICS in 2015 and 2016 with the proposal of new exhibits to the December 2007 Lower Colorado River Basin ICS Forbearance Agreement.

SNWA's best efforts to increase the amount of water in storage by 45,000 acre-feet may include delivery of imported groundwater to Lake Mead, recovery of water banked in Arizona or Nevada, additional lease or purchase of Muddy or Virgin River water rights, and reductions in off stream storage of Colorado River water.

Reclamation's best efforts to increase the amount of water in storage by 50,000 acre-feet are anticipated to include efficiency improvements, operational improvements, and creation of Colorado River system water. The significant provisions of the pilot drought response actions MOU are described more fully in [Attachment 1](#).

Benefits to Metropolitan

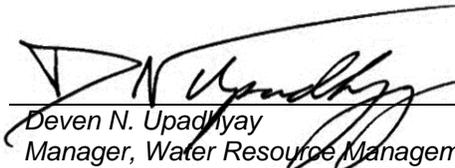
Execution of the proposed MOU with Reclamation, SNWA, CAWCD, CRB, CRCN, and ADWR would continue the interstate collaboration which has occurred since 1992. Additionally, implementation of actions to achieve the goals in the proposed MOU would decrease the chance of Lake Mead reaching 1,000 feet in the next five years. Metropolitan would also benefit from increased power generation at Hoover Dam resulting from higher Lake Mead levels. Implementation of any elements of the proposed MOU would require written funding agreements, which would require formal board action.

Policy

By Minute Item 41222, dated January 10, 1995, the Board adopted a set of Colorado River Basin Management Policy Principles that include continuing to seek ways to increase the reliability of Metropolitan's Colorado River supplies and collaborate with the other Colorado River Basin states and the Department of the Interior on innovative strategies requiring interstate cooperation.

Fiscal Impact

None. The proposed MOU would not obligate Metropolitan to expend any funds.



 Deven N. Upadhyay
 Manager, Water Resource Management
 11/20/2014
 Date



 Jeffrey Knightlinger
 General Manager
 11/20/2014
 Date

Attachment 1 – Terms and Conditions, Proposed Bureau of Reclamation-Metropolitan-Southern Nevada Water Authority-Central Arizona Water Conservation District-Colorado River Board of California-Colorado River Commission of Nevada-Arizona Department of Water Resources Memorandum of Understanding

Terms and Conditions

Proposed Bureau of Reclamation-Metropolitan-Southern Nevada Water Authority-Central Arizona Water Conservation District-Colorado River Board of California-Colorado River Commission of Nevada-Arizona Department of Water Resources Memorandum of Understanding

Purpose

The proposed memorandum of understanding (MOU) documents initial steps between 2014 and 2017 toward conserving additional water in Lake Mead to reduce the risk of reaching critical reservoir elevations in a manner consistent with the Law of the (Colorado) River.

Participants

The Bureau of Reclamation (Reclamation), Metropolitan, Southern Nevada Water Authority (SNWA), Central Arizona Water Conservation District (CAWCD), Colorado River Board of California (CRB), Colorado River Commission of Nevada (CRCN), and the Arizona Department of Water Resources (ADWR) are the participants in the MOU.

Term

The proposed MOU will remain in effect until December 31, 2019.

Conservation of Additional Water in Lake Mead between 2014 and 2017

Metropolitan will use best efforts to create 300,000 acre-feet for the dual purpose of providing short-term drought relief in California and reducing the likelihood of Lake Mead reaching critical reservoir elevations. Metropolitan may fund conservation projects to create or defer delivery of Intentionally Created Surplus (ICS). The proposed MOU specifies that Metropolitan will need flexibility during low reservoir conditions to meet its goal.

CAWCD will use best efforts to create 345,000 acre-feet by methods which may include intentional creation of system water and anticipated creation of Extraordinary Conservation ICS.

SNWA will use best efforts to create 45,000 acre-feet by methods which may include restarting Coyote Spring Valley groundwater deliveries to Lake Mead, recovering groundwater banked in Arizona or Nevada, leasing or purchasing Muddy or Virgin River water rights, and reducing off-stream storage of Colorado River water.

Reclamation will use best efforts to create 50,000 acre-feet by methods which are anticipated to include efficiency improvements, operational improvements, and creation of system water.

Urgent Needs

If Metropolitan, SNWA, or CAWCD is faced with operating conditions that have the potential to adversely affect its ability to meet Direct Delivery Domestic Use needs, they may initiate consultation to discuss ways to address such potential impacts.

Consultation

The Participants recognize that voluntary actions by other entities from each of the Lower Division States (Arizona, California, and Nevada) will be essential to implement and build on the voluntary actions identified in the proposed MOU. The Participants will consult with one another and seek the participation of additional entities within the Lower Division States at times and for the following purposes:

Adjustment of Drought Response Actions

The Participants will reinitiate consultation in August 2016 to conserve additional water in Lake Mead. The Participants will also reinitiate consultation if the elevation of Lake Mead is projected to fall to 1,060 feet or rise to 1,105 feet.

Planning to Address Long-Term Sustainability

The Participants recognize that additional actions among Reclamation and the Lower Division States and water users will be needed to address the existing water supply and demand imbalance and long-term sustainability of the Colorado River system within the Lower Colorado River Basin, and will necessarily include additional flexibility for water users during low reservoir conditions.

General Provisions

The proposed MOU does not obligate any participant to expend any funds nor does it create any legally enforceable rights in any of the participants.