



# United States Department of the Interior

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November 26, 2007

## Memorandum

To: Area Manager, Boulder Canyon Projects Office, Lower Colorado Region, Bureau of Reclamation, Boulder City, Nevada (BCOO-1003)

From: Field Supervisor

Subject: Confirmation of Endangered Species Act (ESA) Coverage by the Lower Colorado River Multi-Species Conservation Program for Certain Identified Elements of the Proposed Adoption of Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations of Lake Powell and Lake Mead (Proposed Action)

Thank you for your memorandum of October 26, 2007, received by us October 29, 2007, requesting our concurrence that the identified elements of the subject Proposed Action is a covered project under the Lower Colorado River Multi-Species Conservation Program (LCR MSCP). The identified elements of the Proposed Action under consideration here are summarized below:

1. Determine those circumstances under which the Secretary of the Interior would reduce the annual amount of water available for consumptive use from Lake Mead to the Colorado River Lower Division states (Arizona, California, Nevada) below 7.5 million acre-feet (a "Shortage") pursuant to Article II(B)(3) of the United States Supreme Court Decree in the case of *Arizona v. California*, 547 U.S. 150 (2006);
2. Define the coordinated operation of Lake Powell and Lake Mead to provide improved operation of these two reservoirs, particularly under low reservoir conditions;
3. Allow for the storage and delivery, pursuant to applicable Federal law, of conserved Colorado River system and non-system water in Lake Mead to increase the flexibility of meeting water use needs from Lake Mead, particularly under drought and low reservoir conditions; and
4. Determine the conditions under which the Secretary of the Interior may declare the availability of surplus water for use within the Lower Division states. The Proposed Action would modify the substance of the existing Interim Surplus Guidelines (ISG) published in the Federal Register on January 25, 2001 (66 Fed.Reg. 7772), and the term of the ISG from 2016 through 2026.

The LCR MSCP is a 50-year combined ESA section 7 and section 10 program that addresses the

effects to endangered and threatened species of the Colorado River in Arizona, California, and Nevada from current river management operations, water delivery, and hydropower generation by Federal and state agencies and water and power users in the three states. The Bureau of Reclamation (Reclamation) included in their list of covered actions for the LCR MSCP various future management actions envisioned for the Colorado River. For this concurrence, the relevant future actions are summarized below. For more detailed information, please see Chapter 2 of the Biological Assessment and Appendix J of the LCR MSCP.

1. Reductions in annual flows between Hoover Dam and Davis Dam of 0.845 million acre-feet (maf), between Davis Dam and Parker Dam of 0.860 maf, and from Parker Dam to Imperial Dam of 1.574 maf.
2. Provisions for shortage determinations to maintain the elevation of Lake Mead at or above 1050 mean sea level (msl) with an 80 percent probability over the 50-year life of the project, and at or above 950 msl at all times over the life of the project.
3. Extension of the 2001 ISG with both full and partial domestic surpluses available through 2051.
4. Equalization of storage in Lake Powell and Lake Mead would continue to occur based on the current protocol, including provisions for section 602(a) storage in the Upper Division states.

For the LCR MSCP and the Proposed Action, Reclamation assessed the effects of changes in water flows using their Riverware modeling process. The No Action Alternative, representing the baseline condition that is compared to the Proposed Action includes the covered actions from the LCR MSCP except that the ISG is assumed to revert to the 70R quantified surplus or flood control surplus (no full or partial domestic surplus provided) beginning in 2017. The 70R and flood control surpluses are more restrictive than the full or domestic surplus and would happen less often. The No Action Alternative does not have a mechanism for specifically addressing the conservation of system and non-system water in Lake Mead that is in the Proposed Action since none was included in the LCR MSCP. However, the final modeling of the Proposed Action versus the No Action Alternative includes the effects of such conservation and eventual delivery to water users within the annual flow reductions for the LCR MSCP.

The results of modeling for the four elements of the Proposed Action, as related to the ESA coverage through the LCR MSCP are summarized below. Because the LCR MSCP has a longer term (2055) versus 2026 for the Proposed Action, there are effects from the Proposed Action that extend out after 2026 and the resumption of the No Action Alternative provisions. In many of the modeling results, the long-term (2026-2055) effects of the Proposed Action exceed that of the LCR MSCP as represented by the No Action Alternative. It is reasonable to assume that some form of management of shortage, surplus, and conservation would be put in place other than the No Action Alternative for the time period beyond 2026 to ensure compliance with the terms of the LCR MSCP coverage through that period, which would prevent those limits from being exceeded.

1. For declared shortages, the total amount of reductions in flow below Hoover Dam to Imperial Dam resulting from the shortage is not expected to exceed the limits set by the

LCR MSCP through 2026. After 2026, the Proposed Action reductions exceed the LCR MSCP reductions below Hoover Dam and Davis Dam by up to 2 percent. The 1,574 maf reduction below Parker Dam is not exceeded during the entire modeling period.

2. Declared shortages at the Proposed Action's Lake Mead elevations would protect elevation 1050 at an 80 percent probability and 950 at all times.
3. Lake Mead levels will be influenced by shortage or surplus declarations, conservation of system and non-system water, and the equalization with Lake Powell. The final result of modeling the Proposed Action with the No Action Alternative does not indicate any significant difference in elevations between the two scenarios.
4. The ISG extension in the Proposed Action is more conservative than the LCR MSCP and would protect Lake Mead elevations by reducing the amount and frequency of surpluses.

Based on the results of the analyses discussed in the Final Environmental Impact Statement related to the effects of the Proposed Action as compared to the No Action Alternative representing the LCR MSCP, we concur with your finding that the effects of implementation of the Proposed Action are within the range of effects analyzed for the LCR MSCP. Additional consultation for effects of the Proposed Action in the project area for the LCR MSCP is not needed. This concurrence is valid for the life of the Proposed Action provided that actual effects to flows and Lake Mead elevations remain within the parameters of coverage provided by the LCR MSCP. Additional consultation may be needed to address conditions outside of the modeling.

Thank you for your efforts to preserve endangered and threatened species through the conservation programs of the LCR MSCP. If there are any questions regarding this concurrence, please contact Lesley Fitzpatrick at (602) 242-0210 x236.



for Steven L. Spangle

cc: Program Manager, LCR MSCP, U.S. Bureau of Reclamation, Boulder City, NV (LC-8000)