
ATTACHMENT F

Surplus Criteria Proposal by California

This attachment contains a document prepared by agencies in California presenting their recommendations on interim surplus criteria. This document was published as Exhibit A of an October 15, 1999 document entitled *Key Terms for Quantification of Settlement Among the State of California, IID, CVWD and MWD*.

EXHIBIT A:

SURPLUS CRITERIA FOR MANAGEMENT OF THE COLORADO RIVER

Need For Development of Revised Interim Surplus Criteria

The Criteria for Coordinated Long-Range Operation of the Colorado River Reservoirs (LROC) reflect the multiple purposes for which the reservoir system is operated. Resource management requires the optimization of the operation of the Colorado River System reservoirs to satisfy the growing needs of these purposes. The Colorado River has been widely developed through great investments by the federal government and many water and power agencies to provide system storage of more than 60 million acre-feet. The reservoir system and its extensive storage allows the operation of the Colorado River to be efficiently managed so as to optimize the beneficial use of this resource which supports more than 20 million people and multi-billion dollar farm and business economies.

The governing view of river operations during the development of the LROC anticipated that the level and growth of water needs for this period and beyond would be such that little or no surplus water would occur, and did not contemplate a prolonged interim period of surplus water. Most efforts relating to reservoir operations in the development of the LROC focused on shortage criteria. Consequently, Colorado River management has the consequence of maximizing the amount of water held in storage in the near term. This strategy tends to force more flood control releases in wet years, in excess of downstream needs and the ability to divert and store such water for subsequent use. In dry years, this strategy leans towards not releasing water to users even though there is a high probability for the next fifteen years of surplus water

releases in excess of needs and the ability to store and divert such water. Overall, this strategy does not optimize the beneficial use of this valuable resource because it does not take full advantage of the high volume of storage created by the extensive infrastructure on the river. It was also envisioned in the 1968 Colorado River Basin Project Act that there would be a federal augmentation of the flow of Colorado River. In the absence of augmentation, the ability to optimize the use of available surplus water and to store water off-stream is essential.

Revised interim surplus criteria are needed to guide reservoir operations to increase the reasonable and beneficial use of surplus water while keeping risk of shortages minimal. Specific criteria would provide for more effective and efficient use of Colorado River water by providing for steadier releases over longer periods of time. This would reduce the need for flood control releases in excess of the downstream needs, and increase the ability to divert and store such water for subsequent use.

Surplus criteria based on these principles would promote water use efficiency, and provide increased reliability and predictability to Colorado River water users. Predictability would allow water agencies to more effectively plan for the future, and more efficiently allocate limited resources as appropriate. More predictable releases could also benefit the planning required for developing the Lower Colorado River Multi-Species Conservation Program.

A. Implementation of Surplus Criteria

Revised interim surplus criteria should preferably be developed pursuant to Article III(3) of the LROC. These surplus criteria would be used in conjunction with the LROC to develop the annual operating plan (AOP). In this way, the surplus criteria will provide a high degree of

certainty by adoption through a formal process with public comment and input, and publication in the Federal Register. Certainty is enhanced through the five-year review process already present in the LROC which requires consultation with the Basin states and water users, before changes to the surplus criteria can be implemented. By keeping reviews of the surplus criteria on a five-year time frame, agencies can develop data and gain experience on how the surplus criteria are operating without reacting to annual fluctuations.

By the same token, the five-year review process in the LROC provides flexibility through a process in which the surplus criteria can be adjusted without requiring a lengthy administrative process. The AOP consultation process will serve to put parties on notice of any concerns regarding the operation of the surplus criteria, which can then be addressed through the five-year review. This orderly process will prevent sudden or unilateral changes to the surplus criteria while providing flexibility to adapt the surplus criteria to changed conditions as circumstances warrant.

The current schedule for development of surplus criteria by the Department of the Interior calls for circulation of final NEPA documentation in December 2000, with a Record of Decision by January 2001. This schedule allows the surplus criteria to provide the sought for benefits and certainty within a reasonable timeframe.

B. Revised Surplus Criteria

Revised interim surplus criteria, also referred to as "River Re-operations", are based on a strategy of optimizing use of existing storage to make available the maximum amount of surplus water while keeping risk of shortages to a minimum during at least the first fifteen-year period of

the California Quantification Settlement, and possibly beyond. This allows for an efficient use of the existing supply of Colorado River water by utilizing storage to reduce flood control releases. The use of revised surplus criteria during this period also allows California to achieve a “soft landing”, avoiding severe supply impacts and lengthy legal disputes over water rights, in implementing the California Plan to reduce annual Colorado River water usage to 4.4 million acre-feet when required.

The proposed surplus criteria specifically use elevations at Lake Mead as a trigger, instead of the previous concept, which used avoidance of flood control releases as the trigger. This management strategy uses three levels of surplus water releases with elevation triggers that are adjusted periodically to reflect real world conditions in the Colorado River Basin.

The proposed surplus criteria provide significant surplus water benefits to California, Arizona, and Nevada--allowing for beneficial use of water that would otherwise likely be lost. River modeling indicates that the risk of shortage to Arizona and Nevada is quite slight, and even these small risks can be mitigated. For instance, with regard to shortage risk for the Central Arizona Project caused by revised surplus criteria, there would be a zero percent likelihood of shortage through 2010, and a 1 to 6 percent likelihood from 2011 through 2015. Withdrawing prior surplus water from groundwater storage could completely offset the likelihood of shortage through 2015. Such surplus criteria would provide for more effective use of surplus water, and provide greater benefits to California, Arizona, and Nevada than under previous proposals.

The proposed three levels of surplus criteria are as follows:

Level 1 Surplus Release – Level 1 surplus releases will be based on a Lake Mead elevation at or above 1,160 feet (17.6 million acre-feet (MAF) in storage at Lake Mead) starting in 2001 and rising to 1,166 feet (18.4 MAF in storage) by 2015. The trigger elevations will be adjusted based on demands within the Upper Basin. Actual trigger levels will be based on reality and have the ability to be adjusted depending on the real usage of Colorado River water. If the Upper Basin demand for a given calendar year differs from the current assumed projection of demand, the elevation levels will be adjusted upward or downward by 1-foot for every 1.7 percent change in the Upper Basin demands. Level 1 surplus releases will be available to Arizona, California and Nevada for all direct uses or off-stream storage based on the current surplus allocation (46%-50%-4%, respectively). Storage water is essential for increasing water supply reliability during inevitable shortage or normal years. Any water apportioned to but unused in any state will be available for use in the other states.

Level 2 Surplus Release – Level 2 surplus releases will be based on a Lake Mead elevation at or above 1,116 feet (13.0 MAF in storage) in 2001 (but below the Level 1 surplus of 1,160 feet in that year) and rising to 1,125 feet (13.9 MAF in storage) in 2015 (but below the Level 1 surplus of 1,166 feet in that year). Here again, the trigger elevation will be subject to adjustment over time. If the Upper Basin demand for a given calendar year differs from the current assumed projection of demand, the elevation levels will be adjusted upward or downward by 1-foot for every 1.1 percent change in the Upper Basin demands. Under a Level 2 surplus declaration, surplus water will be made available for the following uses: Metropolitan will keep the Colorado River Aqueduct full, the Southern Nevada Water Authority will meet water needs in its service area, and the Central Arizona Project will meet water needs in its service area. In

keeping the Colorado River Aqueduct full, Metropolitan will divert water conserved and available to Metropolitan under the IID/MWD Water Conservation Program, the IID-SDCWA Transfer, and the All American and Coachella Canal lining projects before diverting Level 2 surplus water. Surplus water will not be made available for any other agricultural uses. Surplus water may be stored for municipal and industrial uses only. Any water apportioned to but unused in any state will be available for use in the other states.

Level 3 Surplus Releases -- Level 3 surplus releases will be based on a Lake Mead elevation at or above 1,088 feet (10.5 MAF in storage) in 2001 (but below the Level 2 surplus of 1,116 feet in that year) and rising to 1,098 feet (11.3 MAF in storage) in 2015 (but below the Level 2 surplus of 1,125 feet in that year). Here again, the trigger elevation will be subject to adjustment over time. If the Upper Basin demand for a given calendar year differs from the current assumed projection of demand, the elevation levels will be adjusted upward or downward by 1 foot for every 1 percent change in the Upper Basin demands. Under a Level 3 surplus declaration, surplus water will be made available to satisfy Indian and urban demands; Metropolitan will keep the Colorado River Aqueduct full, the Southern Nevada Water Authority will meet water needs in its service area, and the Central Arizona Project will meet urban and Indian water needs in its service area. In keeping the Colorado River Aqueduct full, Metropolitan will divert water conserved and available to Metropolitan under the IID/MWD Water Conservation Program, the IID-SDCWA Transfer, the All American and Coachella Canal lining projects, and an additional 100,000 acre-feet from other sources annually, before diverting Level 3 surplus water. The additional 100,000 acre-feet will come either from already banked off-stream storage or an option type program similar to the MWD-PVID Test Land Following

Program. Surplus water will not be made available for agricultural uses or for off-stream storage. Any water apportioned to but unused in any state will be available for use in the other states.