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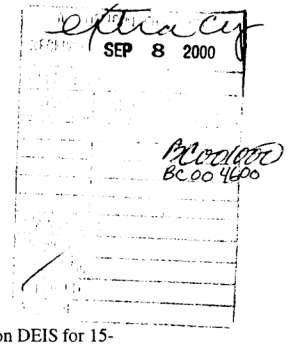


**VIA FAX AND OVERNIGHT MAIL**

Ms. Jayne Harkins
Lower Colorado Regional Office
Bureau of Reclamation
Attention BCOO-4600
P.O. Box 61470
Boulder City, Nevada 89006

United States Bureau of Reclamation
Lower Colorado Regional Office
P.O. Box 61470
Boulder City, Nevada 89006

Re: Colorado River Interim Surplus Criteria-Comments on DEIS for 15-year Agreement Governing Lower Basin Water Allocations-Reference DES 00-25

Ladies and Gentlemen:

Enclosed please find the comments of the Union Park Water Authority to the Draft EIS ("DEIS") concerning the 15 year agreement for the proposed Colorado River Interim Surplus Criteria affecting the Lower Basin ("15-year agreement"). The Union Park Water Authority and its attorneys did not receive a copy of the DEIS until September 6, 2000, though one was requested much earlier. The short time frame allowed for comment on this important document and the underlying decision is utterly inadequate to the importance of the topic to the Lower Basin and to the State of Colorado. The Union Park Water Authority requests an additional sixty (60) days beyond September 8, 2000, to make additional comments.

The Union Park Water Authority is composed of the following members, all of which have actual or projected water service responsibilities in the area of southern and southeastern metropolitan Denver and environs: Arapahoe County, Parker Water and Sanitation District, Rangeview Metropolitan District and Arapahoe County Water and Wastewater Authority. The Denver metropolitan area and surrounding communities lie to the east of the Rocky Mountains, but, for Colorado River Compact purposes, are considered a part of the Colorado River basin when Colorado River water is used east of the continental divide. The UPWA is attempting to develop the Union Park Reservoir Project ("Union Park Project"), designed to store surplus flows from the Upper Gunnison River for delivery to both the east and west slopes of Colorado. The Union Park Project is a high altitude, off-river storage project. The Gunnison is a major tributary of the Colorado River, and the basin of the Gunnison River lies entirely within Colorado.

The Union Park Project lies approximately 35 miles above the Aspinall Unit, a series of three federal reservoirs constructed under the authority of the Colorado River Storage Project Act ("CRSPA"). The largest of these is Blue Mesa Reservoir with a storage capacity of roughly a million acre-feet. The UPWA and its predecessor, Arapahoe County, have been in litigation for 12 years to attempt to obtain water rights to store water at the proposed Union Park Reservoir for municipal uses. UPWA believes that an annual average of 110,000 to 120,000 acre feet may be diverted in each year for use on both slopes. In that litigation, the U.S. Bureau of Reclamation, has now asserted the ability to utilize power generation, recreational and flood control rights at the Aspinall Unit to block new municipal appropriations in Colorado. The United States has not yet made similar assertions related to the other CRSPA units, being the Glen Canyon, Flaming Gorge or Navajo facilities, but plainly could. Since Colorado has the largest entitlement to the Upper Basin's Compact share, the inability of Colorado to develop has a major impact on the Upper Basin's ability to develop.

**Comment Summary**

1 The 15-year agreement, viewed in concert with related agreements concerning usage in California, affords major, new protections to municipal and industrial use in the Lower Basin, and California in particular. The needs of the Lower Basin cannot be viewed in isolation; without a concurrent commitment to protect municipal requirements in the Upper Basin, including Colorado, there is no protection for the Upper Basin. The DEIS fails to consider either the significance or the practical effect of vigorous, current federal efforts to prevent development of Upper Basin's Compact share for municipal use. The UPWA is deeply concerned that the 15-year agreement will be utilized to support the continuing efforts by the federal government to prevent additional usage of Colorado's Compact share on the Colorado front range. Without a concurrent commitment to develop water resources in the Upper Basin for actual use, the usage of surpluses generated in the Upper Basin will be permanently targeted for use in the Lower Basin for municipal and industrial use and for the protection of endangered species there and in Mexico.

The DEIS fails to discuss the federal government's assertion that its ownership of CRSPA facilities in the Upper Basin allows it to prevent the upstream development of Colorado's Compact share for municipal use. The protection of municipal and industrial uses in the Lower Basin, while actively attempting to prevent municipal use in the Upper Basin, is a threat to the long-term interests of the Upper Basin states. The interests and needs of both basins must be considered concurrently.

2 The DEIS's sensitivity analysis indicates that the threat to Lake Powell storage levels may be very great during periods of prolonged drought. The analysis contained in the DEIS appears to be founded on average flow conditions. A threat to Lake Powell storage levels is a threat to the Upper Basin states, including Colorado, and needs to be taken far more seriously.

3 The DEIS also fails to take into account the importance of groundwater banking of artificial surplus waters in the Lower Basin on Lake Powell storage levels. First, there is a question as to whether

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1: The DEIS recognized that future water development will be taking place in the Upper Basin. The computer model simulations of the Colorado River used in the DEIS incorporate an Upper Division depletion schedule, developed by the Upper Colorado River Commission in 1996 in coordination with the Upper Basin States. This Upper Basin depletion schedule, as contained in Appendix K, shows Upper Basin water development taking place in the future with Upper Basin depletions increasing with time. For the FEIS a revised depletion schedule, developed in 1999, was incorporated into the Colorado River computer model. While the analysis performed for the FEIS uses increasing depletion estimates for the Upper Division, the development of specific new water projects within the Upper Division and the environmental compliance and the legal issues to be resolved in such specific projects are not part of the scope of this proposed action.

2: The analysis does show that Lake Powell storage is sensitive to periods of drought under all alternatives considered in the EIS. Changes in Lake Powell storage resulting from surplus water deliveries to the Lower Basin is an important impact being analyzed in this EIS.

3: The Colorado River Basin Project Act of 1968 (CRBPA), in Section 602 (a)(3), states that water not required to be stored under Sections 602 (a)(1) and 602 (a)(2) of the CRBPA shall be released from Lake Powell under specified conditions, and one of those conditions is if it can be reasonably applied in Lower Division States to the uses specified in Article III (e) of the Compact. Article III (e) of the Compact specifies water must be applied to domestic and agricultural uses. The CRBPA further specifies that water is not to be released from Lake Powell when the active storage in Lake Powell is less than the active storage in Lake Mead. As long as the conditions set forth in the CRBPA and the LROC for Colorado River reservoirs are satisfied, we believe the release of surplus water for groundwater banking is fully in compliance with applicable law. Finally, the Lower Division states each define groundwater banking to be a beneficial use.

cont'd

groundwater banking is a current, beneficial use of Compact water under §602. This question is separate and distinct from how wise banking might be from an engineering standpoint. This is a highly relevant inquiry, in that the delivery of artificial "surplus" waters for groundwater banking will require lowering Lake Powell to make equalizing deliveries to Lake Mead. The draft agreement should be modified to prevent lowering of Lake Powell storage levels to make deliveries to the Lower Basin for other than current, beneficial uses, and should specify that releases should not be made for groundwater banking in the Lower Basin.

4

The 15-year agreement appears to contain the potential for substantial damage to be done to Upper Basin interests absent firm requirements for limiting or de-linking equalizing releases from Lake Powell to Lake Mead. The strategy of lowering Lake Powell to make delivery of artificial surpluses to the Lower Basin is, in UPWA's view, highly risky.

**Colorado and the Rest of the Upper Basin Will Only Be Protected by Development of Their High-Altitude Storage Capacity--The 15-Year Agreement Contains no Assurances of Colorado's Right to Develop its Remaining Compact Share**

5

The 15-year agreement offers significant assurance to the Lower Basin population centers that municipal and industrial water will be available for delivery during the 15-year agreement period, at some substantial risk to Lower Basin agriculture. At the same time, however, the United States and environmental groups are acting to prevent new municipal appropriations in the Upper Basin, principally in Colorado. We do not believe that these developments can be ignored by the DEIS, or that they are unrelated.

The 15-year agreement does offer Colorado and the Upper Basin some degree of certainty with regard to water allocation in the Lower Basin. The principal assurance to the Upper Basin is establishing firm benchmarks as to when the Secretary will act to declare surplus or shortage conditions in the system. Clearly, the agreement favors the certainty of municipal supplies in the Lower Basin when viewed in light of the active construction of additional storage there and the re-allocation of Lower Basin priorities.

The situation in the Upper Basin inspires less confidence. When, at the same time as municipal supplies in the Lower Basin are being protected, the U.S. Bureau of Reclamation is acting to prevent municipal development of Upper Gunnison waters in the Colorado portion of the Upper Basin, there is little cause for the Upper Basin states to believe that they are truly protected. In essence, the silence of the Upper Basin gives Lower Basin interests a virtual green light to assure the survival of the surpluses past the 15-year point by utilizing vigorous and active efforts to prevent Upper Basin development.

Without a comprehensive commitment to act to develop Upper Basin resources, the 15-year agreement is but half a loaf. The agreement fails to take account of any need to act to develop Upper Basin water resources to meet critical needs there. The DEIS fails to evaluate the impact of

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4: As noted in Section 1.4.2, the equalization requirement in the LROC is the mechanism through which delivery of surplus water to the Lower Basin can influence the operation of Glen Canyon Dam resulting in changes to the storage of water in Lake Powell. Changes in Lake Powell storage resulting from surplus water deliveries to the Lower Basin is an important impact being analyzed in this EIS.

5: The DEIS recognized that future water development will be taking place in the Upper Basin. The computer model simulations of the Colorado River used in the DEIS incorporate an Upper Basin depletion schedule, developed by the Upper Colorado River Commission in 1996 in coordination with the Upper Basin states. That Upper Division depletion schedule, shows Upper Basin water development taking place in the future with Upper Basin depletions increasing with time. For the FEIS, a revised depletion schedule, developed in 1999, was being incorporated into the Colorado River computer model. While the analysis performed for the FEIS uses increasing depletion estimates for the Upper Division, the development of specific new water projects within the Upper Division and the environmental compliance and the legal issues to be resolved in such specific projects are not part of the scope of this proposed action.

6 Upper Basin development on the needs and water availability in the Lower Basin, including the extent to which development of high storage capacity in the Upper Basin might lead to less frequent surplus conditions in the Lower Basin. The situation in the Upper Basin is not neutral. The U.S. BUREC and the U.S. Fish and Wildlife Service are asserting legal positions which are making it more difficult to appropriate water under the Upper Basin States' Compact shares. This is not a theoretical concern, but one which exists today, and which can only worsen if continued for 15 more years.

**The 15-Year Agreement is Not Without Risk to the Upper Basin**

7 Though the primary risks inherent in the 15-year agreement will fall within the Lower Basin, the agreement is not without risk to the Upper Basin. It is apparent from the notice that the Metropolitan Water District of Southern California ("MWD") is a major beneficiary of the agreement. It is clear that MWD has major new assurances that it will be able to deliver a firm supplies of water for municipal and industrial ("M & I") use during the 15 year period. The risks seem to fall mainly on agricultural use in the Lower Basin, and upon storage levels in Lake Mead. It seems clear that a series of drought condition years would cause a major run-down of Lake Mead storage levels.

8 The likelihood of a major rundown in Lake Mead storage should be further evaluated under historic drought conditions, as well as under anticipated "average flow" conditions. To the extent that this was done in the Sensitivity Analysis of Shortage Assumptions, major decreases below storage protection targets occur at Lake Powell. In the Final EIS, a line should be included in the Lake Powell End of Year Elevations to show the collapse of storage levels below the 3630 level targeted for protection by the 15-year agreement. The results of the sensitivity analysis are startling, and are deserving of far greater attention in the DEIS.

15

16 Should a storage rundown occur, and should major shortages develop in the Lower Basin, the Upper Basin is theoretically protected by a required de-linking of equalizing flows from Lake Powell, behind Glen Canyon dam, to Lake Mead under §602 (a). It is virtually certain that strong political pressure would be brought to bear to release Compact storage from Lake Powell to relieve shortage conditions at Lake Mead and in the Lower Basin generally. The 15-year agreement does not appear to contain assurances that the Secretary would not act to meet shortage conditions by releasing waters from Lake Powell, other than to mandate a minimum storage value at Lake Powell of 14.85 maf and a minimum storage target of elevation 3630.

9 There appears to be a danger that the flow assumptions which underlie the 15-Year Agreement are too optimistic, and that greater attention needs to be paid to the effect on storage levels of prolonged low flow, or drought, conditions. Indeed, modeling of other parameters indicates that the actual fluctuations may be far greater than those depicted on the end of year elevations.

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6: Comment noted.

7: See response to Comment 5-2 with regard to effects of interim surplus criteria on the Upper Basin. The FEIS addresses the risk of severe drawdown of Lake Mead.
8: The method used to model the future inflows into the Colorado River in the FEIS is referred to as the Index Sequential Method (ISM). This technique has been used since the early 1980s and involves a series of simulations, each applying a different future inflow scenario. Each future inflow scenario is generated from the historical natural flow record by "cycling" through that record. As the method progresses, the historical record is assumed to "wrap around," yielding a possible 85 different inflow scenarios. The result of the ISM is a set of 85 separate simulations (referred to as "traces") for each operating criterion that is analyzed. The ISM captures the range of historical inflows that include drought periods, wet periods and in-between periods. This method enables an evaluation of the respective criteria over a broad range of possible future hydrologic conditions using standard statistical techniques.

15: The Lake Powell water surface elevation of 3630 feet is not an elevation identified as a specific threshold water surface elevation. As such, this specific elevation was not analyzed. Other Lake Powell water surface elevations were analyzed that ranged from 3695 to 3612 feet. These range of elevations that were analyzed include all the elevations identified as specific threshold Lake Powell water surface elevations.

16: With interim surplus criteria in effect, the Colorado River would still be operated according to existing regulations. Please see response to Comment No. 5-2.

9: Elevations of lakes Powell and Mead may fluctuate more than 10 feet within any given year. These fluctuations are represented by end-of-December analyses for Lake Mead and end-of-July water level analyses for Lake Powell. However, the Index Sequential Method of modeling which was performed using monthly time steps (see response to Comment 61-8), and presentation of 10-percent, 50-percent and 90-percent exceedence levels (see Section 2.3.4) indicate reasonable responses of reservoir levels to a wide range of hydrologic conditions.