Colorado River Interim Surplus Criteria

Final Environmental Impact Statement

Volume III Comments and Responses

U.S. Department of the Interior
Bureau of Reclamation
December 2000

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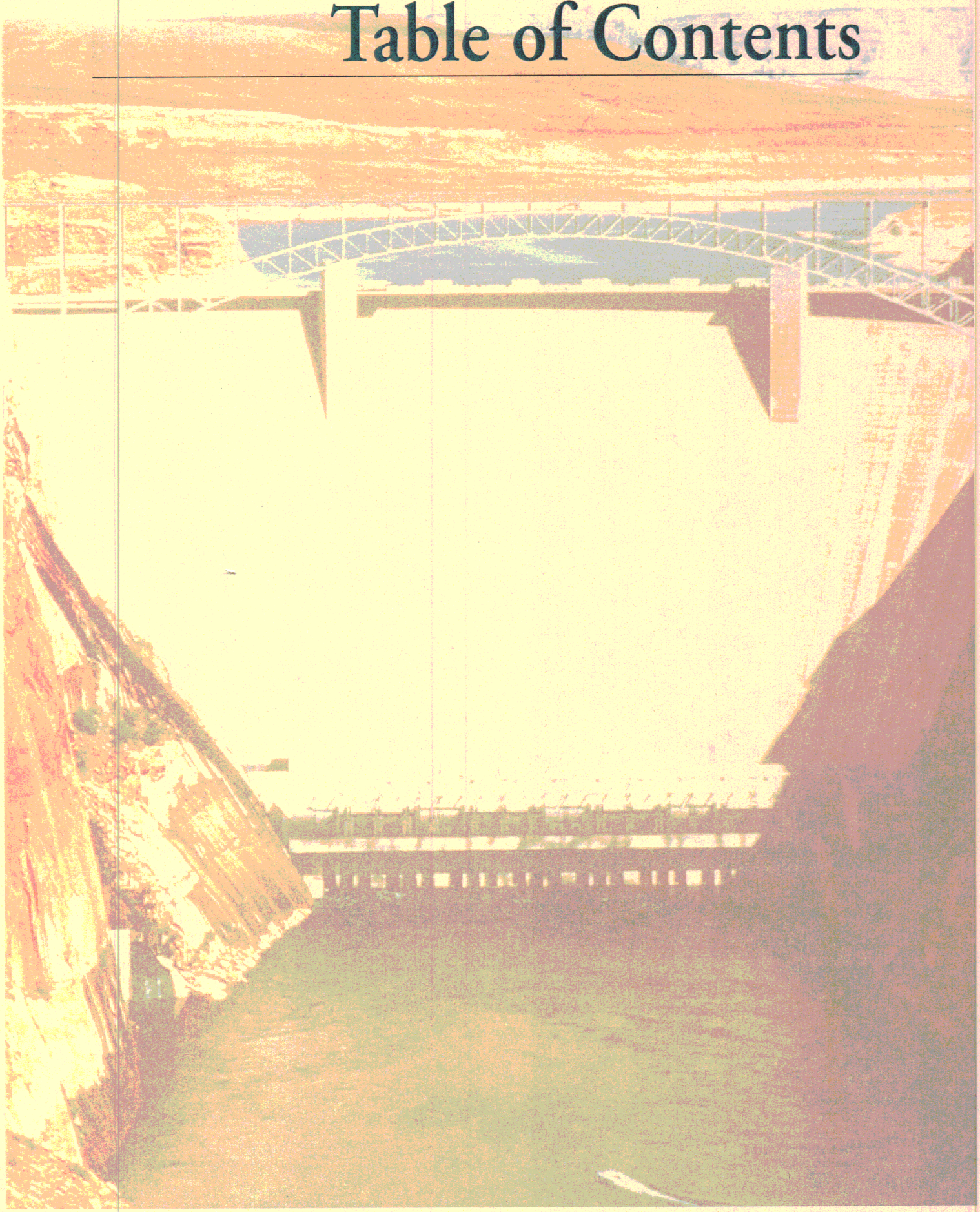

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[1]This letter was submitted by the following organizations:

Defenders of Wildlife
Environmental Defense
El Centro de Derecho Ambiental e Integracion Economica del Sur, A.C.
Friends of Arizona Rivers
Glen Canyon Action Network
Glen Canyon Institute
Pacific Institute for Studies in Development, Environment and Security
Sierra Club
Fred Cagle
Jaqueline Garcia-Hernandez

Introduction

INTRODUCTION TO VOLUME III

Reclamation, acting on behalf of the Secretary, published a Notice of Availability of a DEIS for Colorado River Interim Surplus Criteria, and a schedule of public hearings in the *Federal Register* on July 7, 2000 (Vol.65, No. 131). Additionally, Reclamation published a Notice of Public Availability of Information on the DEIS on August 8, 2000, in the *Federal Register* (Vol. 65, No. 153) for public review and comment. Over 400 copies of the DEIS were distributed to interested federal, Tribal, state, and local entities and members of the general public for review, and the document was also available for public viewing on Reclamation's Lower Colorado Region website.

Public hearings were held to receive oral comments on the DEIS during the month of August 2000. In addition to oral comments made at these hearings, Reclamation received 68 letters with comments pertaining to the DEIS. Reclamation has reviewed all comments received during the Colorado River Interim Surplus Criteria DEIS public comment period.

As a result of Reclamation's review of comments pertaining to the DEIS, and pursuant to the requirements of the NEPA, Reclamation has prepared this FEIS. Volumes I and II of the FEIS contain the revised text of the EIS and the attachments, respectively. Volume III, this volume, contains two parts: Part A discusses oral comments received at public hearings held for the DEIS, and Part B contains copies of comment letters received by Reclamation, accompanied by Reclamation's specific responses to individual issues raised in each letter.

Reclamation received a significant number of comments regarding the purpose and need for this action (development and adoption of interim surplus criteria), and related and ongoing activities. In particular, questions were asked with regard to the relationship of interim surplus criteria to California's efforts to reduce its over reliance on Colorado River water. Reclamation believes that, in addition to the individual responses provided in Part B of this volume, it is appropriate to provide the following general response to these questions.

General Response Pertaining to the Purpose and Need of Interim Surplus Criteria

Reclamation determined in 1999 that there was a need for development of specific surplus criteria (see *Federal Register* Vol. 64, No. 27008 (May 18, 1999) in Chapter 5 of Volume I). Recent experience in preparing the AOPs for the Colorado River Reservoirs has demonstrated the difficulty in making surplus determinations without specific criteria. In addition, the most recent five-year review of the LROC, completed in 1998, produced numerous comments encouraging the Secretary to develop surplus criteria, (see *Federal Register* Vol. 63, No. 9256, at

9258-59 [Feb. 24, 1998].) Many parties, including Reclamation, have long recognized the operational benefits that accrue from development of objective, measurable, predictable criteria to guide operation of important storage reservoirs, such as Lake Mead. At the time of the last review of the LROC, the Secretary found that surplus criteria (and, if adopted, shortage criteria) should: (1) "be specific guidelines that can be used to predict measurable effects in the future, (2) be developed through the AOP process; and (3) include a discussion of the potential effects on Lake Powell spills along with possible mitigation measures." (See *Federal Register* Vol. 63, at 9259).

In response, in 1999, Reclamation proposed adoption of surplus criteria for the operation of Hoover Dam (See *Federal Register* No. 27008, May 18, 1999). The current approach to adoption of surplus criteria differs from that identified in the last LROC review only in that it utilizes a formal NEPA process for evaluation of impacts as opposed to the more informal AOP process established by the Colorado River Basin Project Act of 1968, as amended. In order to build in the ability to respond to actual operating experience, Reclamation also decided to have such criteria implement the provisions of the Decree (Article II(B)(2)) and the LROC (Article III(3)(b)), and be reviewable on a five-year basis at the same time as the LROC is routinely reviewed.

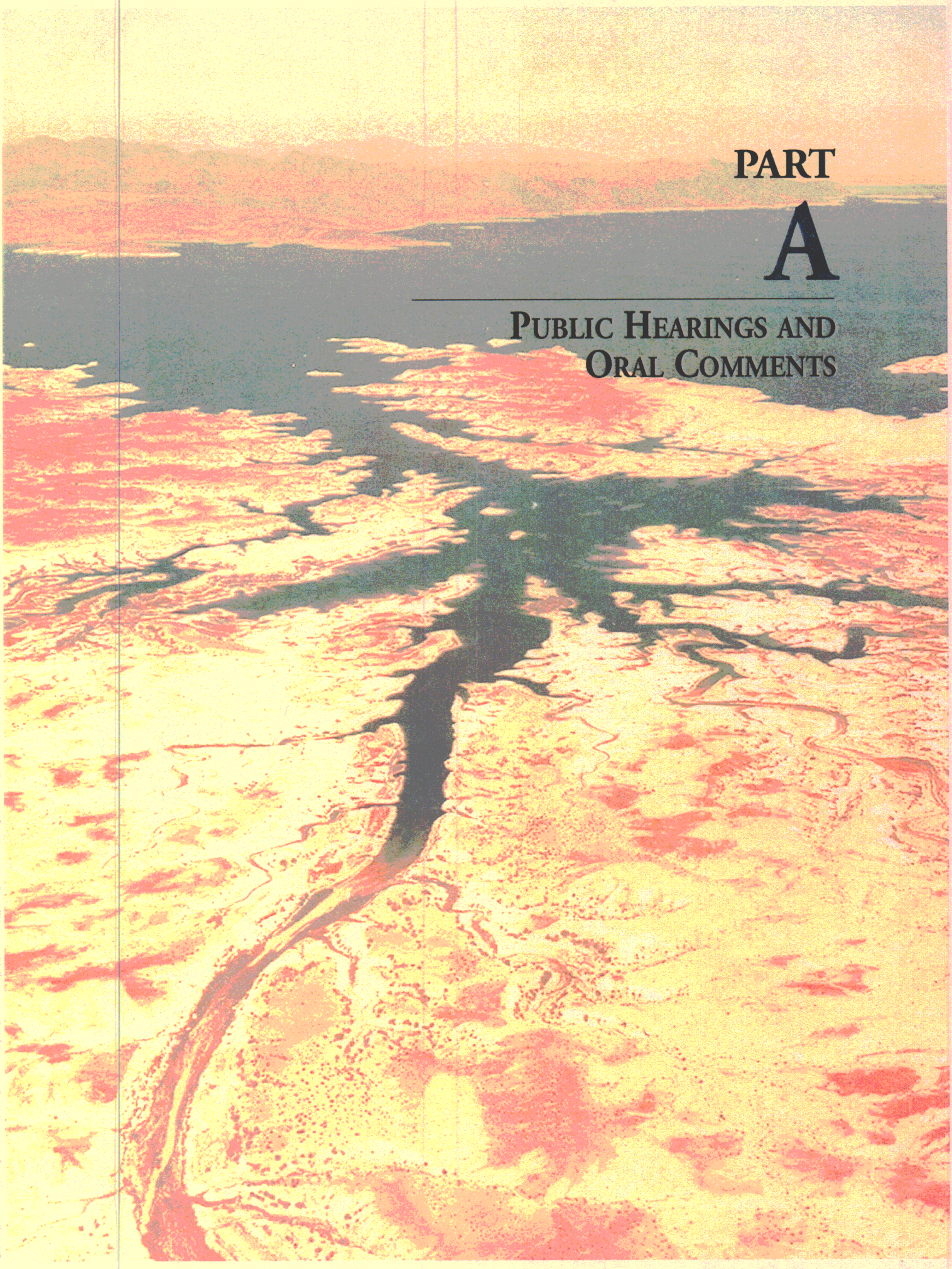
In addition to these operations-based reasons for adopting surplus criteria, current utilization of Colorado River water in the Lower Basin (which exceeds 7.5 maf), listed as one of the factors at Article III(1)(b)(ii) of the LROC, provides an additional basis for both the adoption of surplus criteria and is a factor that Reclamation considered when choosing a preferred alternative. As a result of operating experience over recent years, it is clear that one of the most important issues for Colorado River management is the need to bring use of Colorado River water into alignment with the allocation regime adopted by Congress in section 4 of the Boulder Canyon Project Act of 1928 (BCPA) (see 43 U.S.C. 617c(a)). The pressing need for attention to this important issue is exacerbated by the over-allocation of the Colorado River due to flawed assumptions of its long-term yield that were incorporated into the 1922 Colorado River Compact. For example, the average annual natural flow of the Colorado River at Lees Ferry (1906 to 1998) has recently been estimated at 15.1 maf, while the average prior to the time of the Compact (1906 to 1921) was 18.1 maf. The regime established by the BCPA limits California to 4.4 maf, absent availability of either surplus water or other unused water.

Reclamation intends to insure that the adoption of surplus criteria will provide objective and predictable criteria in a manner that will facilitate the Secretary's enforcement of the basic provisions of the *Law of the River*. As such, when Reclamation commenced this process (see *Federal Register* No. 27008-09, May 18, 1999), it recognized that efforts were underway to reduce California's reliance on surplus deliveries and that it would "take account of progress in that effort, or lack

thereof, in the decision-making process regarding specific surplus criteria." (*Federal Register* Vol. 64, No. 27009). The information available on California's efforts led Reclamation to propose that the term of the surplus criteria parallel the period of key activities for California's planned reduction in use of Colorado River water.

Accordingly, the question of whether to adopt surplus criteria is primarily related to sound water resource management. Having decided that adoption of surplus criteria is appropriate and warranted at this time, the Secretary will consider the impact of interim surplus criteria on California's need for an appropriate implementation period to reduce its over reliance on Colorado River water. As part of his final decision regarding surplus criteria, the Secretary will integrate the California issues with all other aspects of his watermaster duties, particularly its impacts on other state allocations and Tribal users.

In summary, Reclamation believes that adoption of interim surplus criteria is warranted at this time and believes that adoption of such criteria should complement the Secretary's watermaster duties on the lower Colorado River, which include facilitating adherence to the Lower Basin's allocation regime. Further, the adoption of interim surplus criteria is not a component of California's Colorado River Water Use Plan, but should not frustrate California's efforts to reduce its Colorado River usage. As such, Reclamation does not believe that the Purpose and Need statement as presented in the DEIS is inadequate. However, in light of the significant commentary on this issue, and in an effort to clarify the information presented in the FEIS, Reclamation has modified the Purpose and Need discussion in Chapter 1 of the FEIS to reference the relationship between the proposed surplus criteria and California's actions to reduce its dependence on surplus water.



PART A

PUBLIC HEARINGS AND ORAL COMMENTS

PART A - PUBLIC HEARINGS AND ORAL COMMENTS

Reclamation facilitated a series of public hearings to receive oral comments on the DEIS. Public hearings were held between August 21 and August 24, 2000, in the cities of Ontario, California; Las Vegas, Nevada; Salt Lake City, Utah; and Phoenix, Arizona. Each of the individuals who provided oral comments are listed in Table 1, below. Transcripts were prepared for each of the public hearings to provide a written record, and are available upon request.

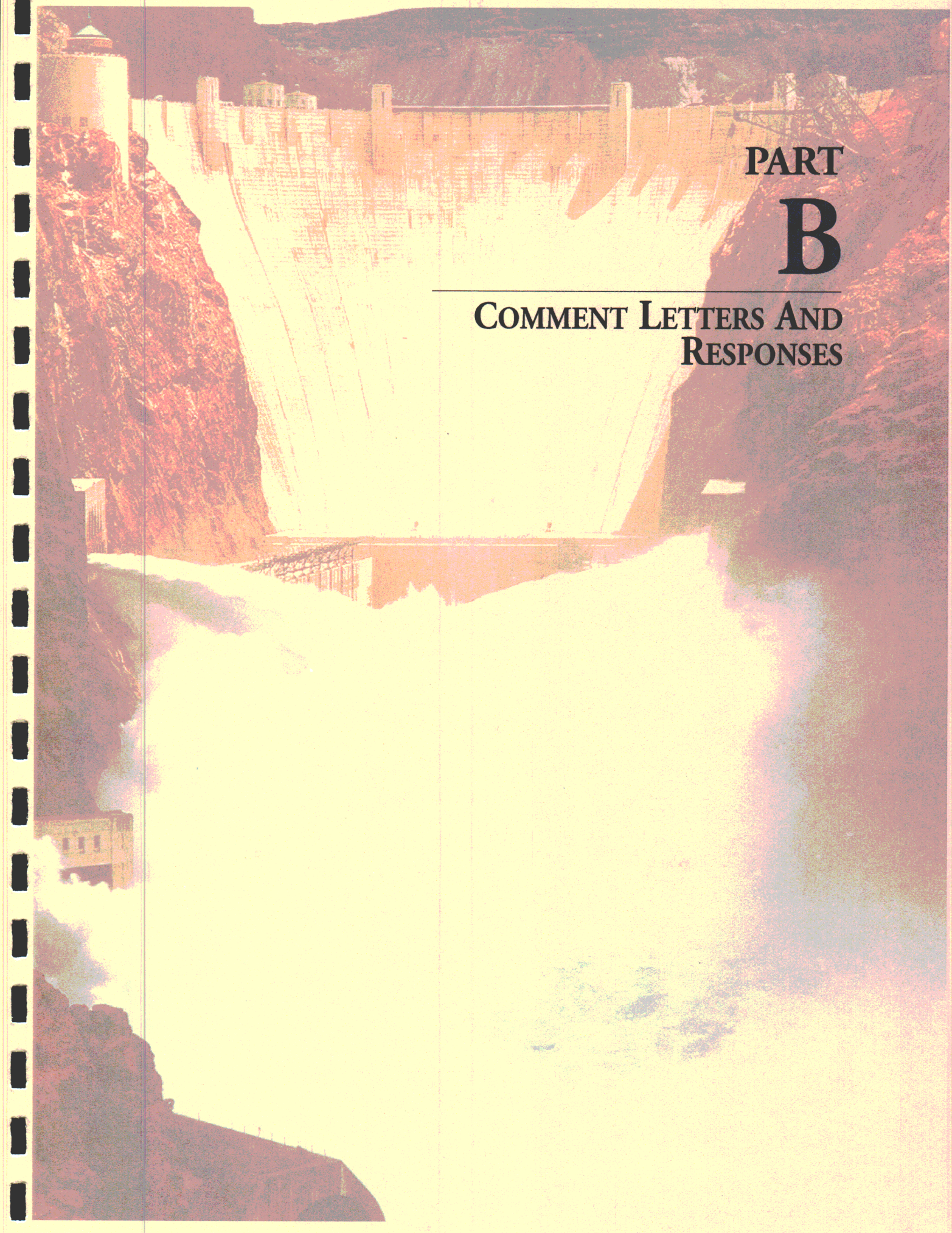
With one exception, each person who provided oral comments at the public hearings also submitted, or represented an organization that submitted, written comments to Reclamation. Reclamation has reviewed the transcripts of oral testimony and determined that the written comments discussed each of the issues that had been raised in the oral comments made by speakers. Because responses have been provided for each of the specific issues raised in the written comments (see Part B of this volume), Reclamation has determined that responses to oral comments are not necessary (with one exception, as noted below). Table 1 is an index of those providing oral comments and the associated comment letters which contain responses to similar issues raised in the oral comments. Note that one commentor, Mr. Wade Noble, raised issues at the Phoenix, Arizona, meeting that were not specifically reiterated in a written comment submittal. As such, Reclamation has included a transcript of Mr. Noble's statement, and has responded to the issues raised by Mr. Noble in Part B of this volume (see Letter 69).

Table 1
Persons Who Provided Oral Comments at Public Hearings

Name	Organization	Associated Comment Letter in Part B
Ontario – August 21, 2000		
James Bond	San Diego County Water Authority	Letter 27
Gerald Zimmerman	Colorado River Board of California	Letter 39
Las Vegas – August 22, 2000		
George Caan	Colorado River Commission of Nevada	Letter 43
David Donnelly	Southern Nevada Water Authority	Letter 29
David Orr	Glen Canyon Action Network	Letter 10[1]
Salt Lake City – August 23, 2000		
Larry D. Anderson	State Division of Water Resources, Utah	Letter 46
Wayne Cook	Upper Colorado River Commission	Letter 32
Phoenix – August 24, 2000		
Herb Dishlip	Arizona Department of Water Resources	Letter 37
Larry Dozier	Central Arizona Water Conservation District	Letter 14
Doug Fant	Arizona Power Authority	Letter 35
Robert Lynch	Irrigation & Electrical Districts Association of Arizona	Letter 22
Wade Noble	Wellton-Mohawk Irrigation & Drainage District	Letter 69[2]

[1] The Glen Canyon Action Network was one of eleven organizations that jointly submitted comment letter 10 on the DIES.

[2] A transcript of oral comments provided by Mr. Wade Noble has been included in Part B as Letter 69.



PART B

COMMENT LETTERS AND RESPONSES

PART B – COMMENT LETTERS AND RESPONSES

This section contains copies of comment letters concerning the Colorado River Interim Surplus Criteria DEIS that were received by Reclamation. Also included are Reclamation's responses to each of the specific issues raised in these letters.

Comment letters have been categorized according to their source, as listed in the Volume III Table of Contents. Each letter has been subdivided into specific issues to which Reclamation has prepared responses. Specific issues are indicated with vertical black lines marked within the left margin of each letter, with sequential numbering that indicates a reference number for each issue. Responses to each issue are numbered accordingly, and are presented to the right of each letter.

INDIVIDUALS

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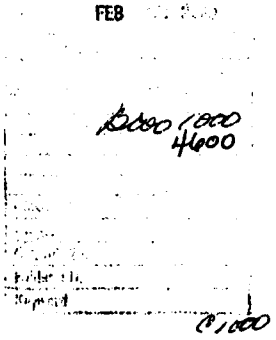
6	Zarbin	B-9

Jayne Harkins
Manager of River Operations
Bureau of Reclamation
PO Box 61470
Boulder City, NV 89006-1470.



Tucson, AZ, February 16, 2000.

Dear Mr. Harkins,

1 I strongly support the establishment of interim surplus criteria that include guaranteed flows for the lower Colorado River and its Delta, as outlined in the February 15, 2000 proposal submitted by American Rivers, Defenders of Wildlife, Environmental Defense, Friends of Arizona Rivers, Glen Canyon Institute, Grand Canyon Trust, Land and Water Fund of the Rockies, the Pacific Institute, Sierra Club, and the Sonoran Institute.

Thank you.

Sincerely,

Garcia Jaqueline

Jaqueline Garcia
jaquelin@ag.arizona.edu
Graduate student
University of Arizona

1: The Pacific Institute Proposal was considered as an alternative but not analyzed in depth for the reasons discussed in Section 2.2.3. See responses to Comment 11-2 and 13-4.

Mark Belles
9318 Willard Street
Rowlett, TX 75088-4403

Regional Director
Lower Colorado Region
c/o Jayne Harkins
BC00-4600
Bureau of Reclamation
P. O. Box 61470
Boulder City, Nevada, 89006-1470

BC00/Harkins
4600

26 August 2000

Dear Reclamation,

Thank you for the review copy of the Colorado River Interim Surplus Criteria Draft Environmental Impact Statement. Please retain my name of the mailing list for this project.

After a thorough review of the DEIS it is apparent that the various alternatives are all *very* similar and that the distinction between them is simply a matter of degree. All describe a means of of meeting the purpose and need of the project and as reading Table 2-1 reveals; a comparison of them shows there are very small differences between the plans.

1 I would like to make a case for the **Shortage Protection Plan**, based on following criteria that might appear to have been long sacrificed on the Colorado River.

By my reading, the shortage protection plan will result in the minimum amount of water impounded by dams over the project period. I strongly recommend this alternative on the basis of "Minimum Impact". Clearly, traditional notions of "Leave No Trace" and "Minimum Impact" to the river have long been abandoned in the name of development. No one can look at Glen Canyon Dam and imagine that "Leave No Trace" has ruled the day, but as in most things improvement is made in matters of degree. The operating philosophy of the Colorado River Storage Project should be to **operate the existing system with as little impact as possible to the environment.**

Clearly the impoundment of water behind a dam is a significant impact to the Colorado River, both up and down stream. The choice of alternatives should be the one that impounds the least water for the least time and thus allows the natural river systems to operate as normally as possible.

Thank you for the opportunity to comment,

Mark W Belles

Page 1

1: Reclamation notes the preference for the Shortage Protection Alternative. We also wish to note that while the Shortage Protection Alternative would tend to produce the lowest reservoir levels, it shares with all alternatives the probability that the reservoirs would refill during periods of above-normal runoff.

5055642313 MEMORYMANN T-967 P-001 SEP 06 '00 09:04
FAX NO. (702) 293-8042

6 September 2000

Verna Forbes Willson (Mrs.)
Post Office Box 2778
Farmington, NM 87499-2778

Ms. Janet Steele, Attention: BCOO-4601
Post Office Box 61470
Boulder City, NV 89006-1470

SUBJECT: Colorado River Interim Surplus Criteria:
INT-DES 00-25

Dear Ms. Steele

My only comment on the DSEIS for the subject surplus criteria is this:

"Although the states of New Mexico and Colorado will be those most impacted by a decision that any of their water from either the Animas or San Juan Rivers which drain into the Colorado River might be considered surplus, not one of your meetings prior to opening your DSEIS for public comment was held in either state. How can the public comment on anything from which they have been excluded by distance, lack of information as to meeting dates, and secrecy?"

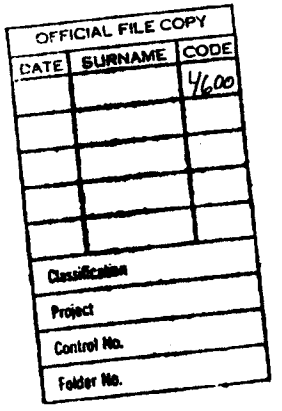
1

I do have two more questions: How can one intelligently comment when one is not informed that one will be impacted by the dealings of Big Government in situations such as this? Although our appointed local San Juan Water Commission MAY have been informed, our elected representatives on the three City Councils in San Juan County, NM were not made privy to the situation. Why not?

Sincerely,

Verna Forbes Willson

1: The EIS was prepared in close coordination with our Upper Colorado Regional Office in Salt Lake City, Utah. We have relied upon their involvement along with input from stakeholders of the Upper Basin states during the scoping, document preparation and public review processes to ensure Upper Basin issues and concerns are adequately addressed in the EIS. It is not accurate to consider water from the Animas or San Juan rivers, or any other of the Upper Basin tributaries, as surplus. It is only water in Lake Mead that the Secretary could make available for use in the Lower Division states that would be considered "surplus." Impacts of the surplus alternatives to the Upper Basin are limited to changes that may occur to the water levels in Lake Powell.



David Hayes and Robert Johnson
Jayne Harkins,
Manager of River Operations,
Bureau of Reclamation,
PO Box 61470,
Boulder City, NV 89006-1470

February 18, 2000

I support the establishment of interim surplus criteria that include guaranteed flows for the lower Colorado River and its Delta, as outlined in the February 15, 2000 proposal
1 submitted by American Rivers, Defenders of Wildlife, Environmental Defense, Friends of Arizona Rivers, Glen Canyon Institute, Grand Canyon Trust, Land and Water Fund of the Rockies, the Pacific Institute, Sierra Club, and the Sonoran Institute. It would be a grand move! Free the Colorado

Please do not hesitate to contact me. Thanks -

Eleanor Inskip
3636 Sixteenth St NW #541B
Washington DC 20010

1: The Pacific Institute Proposal was considered as an alternative but not analyzed in depth for the reasons discussed in Section 2.2.3. See responses to Comment 11-2 and 11-6.

Dave Miller
P. O. Box 567
Palmer Lake, CO 80133
(719) 481-2003, Fax (719) 481-3452

SEP 11 2000

September 7, 2000

0C00160
4600

2 page fax (702) 293-8042

Ms. Jayne Harkins
Attention BC00-4600
P. O. Box 61470
Boulder City, Nevada 89006-1470

Subject: Public Comment on Draft Environmental Impact Statement; Proposed Colorado River Interim Surplus Criteria

Dear Ms. Harkins:

1 2 3 Subject Draft EIS is seriously flawed because: (1) There is a high probability California's Colorado River Water Use Plan is not sustainable over time; (2) The Plan ignores the increased hydrologic and political risks for Upper Basin States; and (3) The values of additional Upper Basin storage for solving Western water, power and air problems were not considered.

4 An anonymous survey among Southern California water managers would reveal serious doubts regarding California's ability to reduce its dependence on Colorado River water during the next 15 years. Although the Plan's objectives may seem reasonable and logical, a false sense of security can do more harm than good for the entire Western Region, including California. Colorado River Compact guarantees for Upper Basin States would quickly evaporate under the powerful political pressures created by California's thirsty farmers and urban areas during a devastating drought cycle.

5 Any agreement that allocates water surpluses and shortages within Lower Basin States, can also have profound impacts on Upper Basin States. For example, if Arizona uses Colorado River water for groundwater banking during normal conditions, the resulting lower levels in Lake Mead and Lake Powell, could greatly increase political pressures on Upper Basin States during times of hydrologic crisis.

6 Upper Basin States also have good reason to be concerned with the cumulative impacts of the 15 Year Plan with recent federal rule changes and national environmental trends. For example, Interior implemented the Colorado River Endangered Fish Recovery Program without first considering the multi-billion dollar impacts on future Upper Basin storage for drought, growth, and environmental needs on both sides of the Divide. Interior is also claiming in Colorado Supreme Court that federal hydropower operations at the Aspinall Reservoirs preempt Colorado's right to store its unallocated Colorado River entitlements above these reservoirs for consumptive needs of both slopes. National, regional, and local environmental groups continue to use unreasonable tactics to stop cooperative headwater storage projects that could benefit the entire Western Region.

1: Comment noted.

2: Comment noted. Risks to Upper Basin states are limited due to Article III (3) (b) of the Criteria for Coordinated Long-Range Operation of the Colorado River Reservoirs pursuant to the Colorado River Basin Project Act of September 30, 1968 (Long Range Operating Criteria - LROC). Pursuant to these documents, equalization criteria for Lakes Mead and Powell are suspended as reservoir elevations decrease and demands increase, delinking effects in the Upper Basin from surplus declarations.

3: Development of additional water storage within the Upper Colorado River Basin would not satisfy the need for the proposed action and is therefore not addressed in this EIS.

4: Comment noted.

5: See response to Comment 5-2 above.

6: Comment noted.

In short, Interior's subject Colorado River proposal should not be signed without a concurrent binding commitment to evaluate, permit, and construct a viable high altitude, off-channel storage capability for Upper Basin States during the same 15 year period. The unprecedented merits of such an overlooked storage program can be quickly determined using Interior's advanced River Ware Model for simulation. A modeling effort will clearly show substantial water quantity and quality benefits for both Upper and Lower Basin States, for a small fraction of the life-cycle cost of alternatives currently being considered. The Southwestern Region's endangered species, recreation, power, and air impacts can also be included in this evaluation.

7 BUREC had one million dollars in its FY 1990 budget for a similar computer study of Colorado's high altitude Gunnison storage sites. Unfortunately, misguided Gunnison activists and Colorado officials were successful in killing this early BUREC effort to objectively evaluate high altitude storage for the Western Region. Regrettably, BUREC has now apparently lost its interest in high storage.

It should also be noted that a 1987 U.S. Army Corps of Engineers' simulation of the South Platte River determined that an average annual 60,000 acre feet from high altitude Gunnison storage could increase the safe-yield of Denver's existing reservoirs by 111,000 acre feet. The additional multiple benefits for the entire Platte and Colorado River systems were not considered. In spite of this Corps of Engineers' study, Colorado's high storage alternatives were improperly excluded from the Final Two Forks Dam EIS for political reasons. These examples are typical of misguided federal, state, and environmental community efforts to prevent development of Upper Basin Colorado River entitlements.

8 In view of the above and the overlooked interrelationships between Upper and Lower Basin water agreements, I respectfully recommend at least a 90 day extension of time for public comment. To allow only 30 days for comments on a proposal that is 10 years in the making is both dangerous and unprecedented. This is especially true, considering the current trends against water development in Upper Basin States.

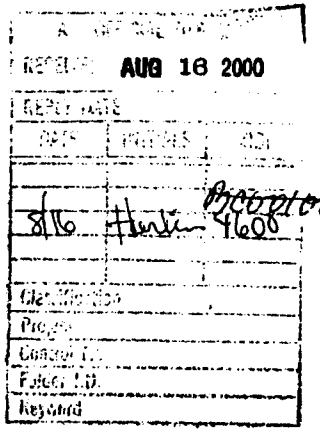
Sincerely,

Dave Miller
Independent Water Planner

cc: Council on Environmental Quality, Western Governors, Congressional Committees

7: As discussed above, the effects of interim surplus criteria on the Upper Basin are limited to changes in Lake Powell water level due to equalization provisions of the Colorado River Basin Projects Act of 1968. Given the current climate surrounding new water storage projects in the West, high elevation storage would take many years for formulation, approval and development. Your suggested commitment is beyond the scope of this EIS, which is to evaluate impacts of proposed criteria for declaring surplus conditions on the Colorado River during the next 15 years.

8: We believe that coordination between the Upper Division and Lower Division states has resulted in an adequate assessment of potential impacts to the Upper Basin. We further believe that no extension of the comment period for the DEIS was warranted. In accordance with Department of the Interior Departmental Manual, the comment period was open for 60 days following filing of the DEIS with EPA. The notice that provided the working draft of the Seven States proposal for consideration along with the DEIS specified that its availability did not change the length of the DEIS comment period.



August 14, 2000

To: Ms Jayne Harkins
Bureau of Reclamation
Attention: BCOO-4600
PO Box 61470
Boulder City, NV 89006-1470

From: Earl Zarbin
3803 E. St. Catherine Ave.
Phoenix, AZ 85040-5013

Subject: Colorado River Interim Surplus Criteria - Draft Environmental Statement

The preferred alternative is the "No Action Alternative."

1 The reason is simple: State of California interests should be required to adhere to the Colorado River water allocations specified in the Boulder Canyon Project Act of 1928, and to California's legislative act limiting the state to no more than 4.4 million acre-feet of water per year from the mainstream of the Colorado River.

State of California interests have been on notice for years, ever since approval of the Colorado River Basin Project Act in 1968, that the State of Arizona would soon be using all its Colorado River entitlement. That entities within the State of California have failed to adjust their water use accordingly is distinctly their problem, and not that of Arizona, Nevada, or the four other Colorado River Basin states.

2 It would be imprudent for any secretary of the Interior to guess as to the future of Colorado River water flows. Surplus conditions should be decided on a yearly basis based on those flows. Further, there is no assurance that State of California interests, at the end of 2015, will not want to continue using more water than California's legal entitlement.

The time to require California to obey the law is today, not in 2016 or sometime after.

1: Comment Noted.

2: Reclamation agrees that attempting to predict future inflows is an impossible task. However, even with specific guidelines in place, the Secretary will utilize Article III(3)(b) of the LROC and the guidelines in making a water supply determination for use by the Lower Division states each year in the AOP process. The establishment of specific guidelines in no way guarantees any of the Lower Division states surplus water over the next 15 years.

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ORGANIZATIONS

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10	Center for Biological Diversity, et. al.[1]	B-16
11	Defenders of Wildlife	B-22
12	Pacific Institute	B-34
13	Southwest Rivers	B-51

[1]This letter was submitted by the following organizations:
Defenders of Wildlife
Environmental Defense
El Centro de Derecho Ambiental e Integracion Econ'mica del Sur, A.C.
Friends of Arizona Rivers
Glen Canyon Action Network
Glen Canyon Institute
Pacific Institute for Studies in Development, Environment and Security
Sierra Club
Fred Cagle
Jaqueline Garcia-Hernandez

SEP. 6.1999 3:42PM NO.537 P.3/3

American Water Resources, Inc.
1606 HERMOSA PLACE
COLORADO SPRINGS, CO 80906
Phone: 719-635-6060

September 6, 2000

By facsimile 702-293-8042

Jane Harkins
Lower Colorado River Office
Bureau of Reclamation
Boulder City, NV 89006-1470

Dear Ms. Harkins:

I am writing this letter to express my deep concerns on the draft environmental impact statement (DEIS) for the Colorado River Interim Surplus Criteria, currently being considered for adoption. The DEIS is concerned with the determination and distribution of surplus water conditions in the Lower Colorado River Basin during the next 15 years.

1 While environmental impacts must be carefully considered, it is my position that the process for adoption is negative to the Upper Basin states and the real possibility for a train wreck is substantial. In my view, it is unwise for the Upper Basin to enable California's insatiable desire for water by, in effect, putting California on what amounts to water welfare for the next 15 years, a period commonly referred to as the "interim." What happens in the interim in California, as is the case with any recipient of welfare, a term which denotes "helping the disadvantaged," is that a disadvantaged California's claim to the water is actually strengthened. The state's promised reductions in Colorado River water use will not be realized. California's 15-year reliance on water welfare will put it in a powerful position to show that its needs are greater, its population larger, its economic prowess stronger and more valuable than that of all the other states in the compact.

The truth is that a 15-year interim water welfare state will be a runaway train, unable to slow down and at considerable risk of derailing if any state should try to do so. California is not disadvantaged, but by signing the DEIS, the Upper Basin states would be. There are other solutions which should and must be considered.

Thank you for your time and consideration in this matter. Let's work towards an agreement that will be favorable to everyone, including California.

Very truly yours,

Judith Alberti

Judith Alberti
Vice President

JA/aa

1: Comment noted.

COMMENT LETTER

JUL-17-00 12:11 FROM:KIMROS ARLINGTON HTR ID:0476784148 PAGE 1/2

American Water Resources, Inc.

1606 HERMOSA PLACE
COLORADO SPRINGS, CO 80906
Phone: 719-633-6989

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DATE	SURNAME	CODE
Classification		
Project		
Control No.		
Fo...		

July 17, 2000

By facsimile 702-293-8042

Jane Harkins
LCR Office
Bureau of Reclamation
Boulder City, NV 89006-1470

Dear Jane:

Thank you for the 81-pound CR interim surplus criteria/draft FIS. I have just read Chapter I and have serious concerns:

1 1. The time frame for your meetings and written comments is too close. It does not allow for thoughtful review and deliberation and is not reasonable based on the complexity of issues.

2. Why, as was the case in the June 1999 scoping letter, are no meetings held in the Upper Basin States?

3. Unfortunately, very few are competent and knowledgeable on such technical matters as the DEIS. Notwithstanding this, I believe many good citizens would be alarmed at this process and its potential consequences. This is a dynamic process and I would suggest the possibility of great insight by common people if they are made aware.

4. This report gives me the feeling of a freight train going too fast--why?

5. I know of no water institution in the United States that is ready for long-term drought. The probability of this event has never been higher. Astonishingly, everyone assumes the past 100-year water supply will continue. If I could dictate that all studies could be based on a 1,000-year best estimate of water supply, I would be doing a great favor to everyone, and most particularly California.

RESPONSES

1: CEQ regulations require a 45-day minimum review period for a DEIS, starting after a Notice of Availability is published in the Federal Register. Reclamation's practice is to extend this review period an additional 15 days, allowing for a 60-day minimum comment period. The filing date of the DEIS was July 7, 2000 and the public comment period officially ended on September 8, 2000. Reclamation believes that this 63-day period allowed sufficient time for review and comment on the DEIS. One of the four public hearings to receive public comments on the DEIS was held in an Upper Basin state, in Salt Lake City, Utah. As discussed in the DEIS, the area of potential effect analyzed in the EIS is the Colorado River corridor from Lake Powell down to the SIB. Because the majority of this area is located within the Lower Basin, and because surplus determinations made by the Secretary influence water supply in the Lower Division states, holding the majority of the public hearings within the Lower Basin was determined appropriate. The NEPA process, including scoping and the preparation and distribution of the DEIS and this FEIS, has provided an opportunity for Reclamation to identify and disclose to the public the potential effects of interim surplus criteria.

JUL-17-00 13:11 FROM-KINROS ARLINGTON HTS 10-9478794148 PAGE 2/3

Ms. Hankins
July 17, 2000
Page 2

2 This report doesn't seem to want to address the relevant "what if?" I believe the public has a right to know.

I hope you will consider the need to slow down and include the other half who have the greatest risk—the Upper Basin States and their citizens.

Best regards,

American Water Resources, Inc.

Thomas C. Havens

Thomas C. Havens
President

TCH/ss

2: Predictions of future climate are difficult to make, and there are conflicting points of view within the scientific community. Although the index sequential method of modeling using historical records is not a perfect predictor, it provides a rigorous representation of possible future hydrology during the coming decades. Statistical distributions obtained using this method do provide an indication of what could happen during periods of drought, using past drought scenarios as indicators.

SEP. 6.1999 3:41PM NO.537 P.1/3

American Water Resources, Inc.
1606 HERMOSA PLACE
COLORADO SPRINGS, CO 80906
Phone: 719-633-6080

September 6, 2000

By facsimile 702-293-8042

Jane Harkins
Lower Colorado River Office
Bureau of Reclamation
Boulder City, NV 89006-1470

Dear Ms. Harkins:

I have very serious concerns about the DEIS for the Colorado River Interim Surplus Criteria. A scenario of increased drought conditions, which are probable, make the current DEIS a prescription for serious adverse consequences, extreme risk for both the Lower and Upper Basin and possible chaos. I doubt that this agreement is enforceable. It could be dangerously contentious.

1 Since there were no public meetings in Colorado, New Mexico or Wyoming, I believe the owners of this water, the people, are not all aware of the possible consequences. Is it acceptable to drain Lake Mead by 50%? Is Lake Powell vulnerable? It may be that a more balanced and reasoned approach could produce a win/win environment. I would never sign an agreement like this that has been rushed through the process and is neither fair nor wise. We are talking about a multibillion dollar value without protection or compensation for those who are at risk. Why would the Upper Basin put themselves in such a vulnerable and weak strategic position? Why would the Lower Basin assume such a speculative position, based on surplus water that may not be there?

2 The reality is that California needs a more disciplined, creative and economic-based approach. It has many serious, complicated, unresolved and unsigned internal negotiations to conclude. The Upper Basin needs to substantially reduce its risk in this deal. A multimillion dollar contingency fund should be established by California as positive incentive and to cover all the mitigation costs that may arise. The Upper Basin provides its most precious asset—water—and California provides what it has in surplus—money. Fair is fair. This is sound economics and the basis and foundation for a workable and enforceable contract.

1: Reasons the Upper Basin states support adoption of interim surplus guidelines are discussed in the interim surplus criteria proposals submitted by Six-States (see Attachment E), and by the Seven States proposed criteria (see Federal Register notice in Chapter 5). Impacts to the Upper Basin states are based on changes to water levels in Lake Powell, which result from releases to Lake Mead to "equalize" storage between the two reservoirs as discussed in Section 1.4.2 of the EIS. Reclamation is only proposing surplus criteria be in effect for an interim 15-year period, during which time they would be subject to review every 5 years, along with reviews of the LROC.

2: A requirement that California make progress on its Colorado River Water Use Plan may be included in ISC Guidelines. California is responsible for funding any costs associated with compliance and implementation of their plan components. This includes costs for mitigating impacts of those actions that require Secretarial approval as determined by other federal and state environmental compliance documents.

SEP. 6.1999 3:41PM NO.537 P.2/3

Ms. Harkins
September 6, 2000
Page 2

3 The current proposal creates a water welfare state for California whose population of over 30 million is targeted to reach 50 million by 2020, a figure which is more than the combined populations of Arizona, Nevada, Oregon, Idaho, Montana, Wyoming, New Mexico and Utah. California's economic force already represents the seventh largest in the world. Compare this to Wyoming with a population of just 450,000. Should Wyoming be expected to share the risk equally?

In consideration of the DEIS proposal, which would in effect grant water welfare to California, I contend that,

1. California does not need welfare which is negative incentive and bad policy; and,
2. It is always difficult or impossible to reverse a welfare system. It is politically naive to believe California would be ready or willing to give up that benefit.

4 The Colorado River Assurance Program for California is a process out of control. Where is the accountability to the principals, the people? The politicians? We are all familiar with situations where three, five or ten years down the road, after major policy decisions have been made and implemented, inflicting adverse consequences on society, we ask, What were they thinking?

We believe this process could provide win/win solutions to these problems if a broader base of perspectives were applied and a more reasonable time frame was established. Without a solid base, this process will fall apart. We are not there now. Something is missing. Both the Upper Basin and Lower Basin must have the courage to do the right thing, not the politically expedient one.

The environmental issues are a major concern and should be appropriately addressed.

Sincerely,

American Water Resources, Inc.

Jim Havens

Thomas C. Havens
President

TCH/aa

3: As noted in EIS section 2.3, the interim surplus criteria would terminate at the end of the 15-year period. In the absence of subsequently specified criteria, surplus determinations would be made as is currently done, as part of the annual operating plan development (AOP) process. If California is not making progress in implementing its Colorado River Water Use Plan, the Secretary may choose to revert back to 70R Strategy or the AOP process during the interim period.

4: Reclamation is not aware of any program or process by this name. It is the intent of this current process to carefully consider any potential adverse consequences of alternative courses of action discussed by this document.

Center for Biological Diversity
Defenders of Wildlife
Environmental Defense
El Centro de Derecho Ambiental e Integración Económica del Sur, A.C.
Friends of Arizona Rivers
Glen Canyon Action Network
Glen Canyon Institute
Pacific Institute for Studies in Development, Environment and Security
Sierra Club
Fred Cagle
Jaqueline Garcia-Hernandez

SEP 14 2000

Via Fax and Mail

BCOO/HOOD
4600

September 8, 2000

Regional Director
Lower Colorado Region
Attention: Ms. Jayne Harkins (BCOO-4600)
Bureau of Reclamation
PO Box 61470
Boulder City, NV 89006-1470

Re: Draft Environmental Impact Statement on Interim Surplus Criteria

Dear Ms. Harkins:

Thank you for the opportunity to review and to comment on the Draft Environmental Impact Statement ("DEIS") on Colorado River Interim Surplus Criteria. We are supportive of the overall goal of returning California to its 4.4 maf share of the Colorado River, yet we do not believe that such an achievement should come at the expense of downstream riparian and aquatic habitats. The diversion of millions of acre-feet of water and the impoundment of millions more have eroded and desiccated the Colorado River delta in Mexico. Fortunately, since the 1980s flood flows have revegetated the delta which has grown to 150,000 acres, though still a mere 5% of its historic size. As the Department of Interior has recognized, 80 percent of the best Lower Colorado River habitat is in Mexico, yet serious environmental harms are occurring there. The interim surplus criteria provide an opportunity to avoid and mitigate these harms, yet Interior fails to take advantage of this opportunity.

1

1 Therefore, we are disappointed that the Bureau of Reclamation ("Reclamation") rejected consideration of the Pacific Institute alternative that would have provided a reliable measure of freshwater flows. We also have several procedural and substantive concerns with the new Seven States proposal, as well as with the DEIS itself. For several reasons, we recommend that a Supplemental DEIS precede the Final EIS: the DEIS omits a reasonable alternative; the uncertain status of the Seven States information precludes effective public comment; the California Colorado River Water Use Plan is not officially available for comment; the transboundary and cumulative impacts analyses are flawed; and endangered species impacts merit more research and evaluation.

A Supplemental DEIS Should Include An "Environmental" Alternative

2 The range of alternatives is an important piece of NEPA – "This section is the heart of the environmental impact statement." 40 C.F.R. § 1502.14. Contrary to Reclamation's conclusion in the DEIS, the Pacific Institute proposal is not within the range of alternatives in the document (2-3). That proposal, supported by 9 other groups, was submitted specifically to dedicate perennial flows through the river to the delta before declaration of a partial surplus and flood waters to the delta before declaration of a full surplus. No other alternative contains these or any other environmental protection or restoration provisions.

Colorado River flows that reach the Delta are the result of flood control releases in the U.S. Deliveries to Mexico were greater than 1.7 maf in only 24 of the years between 1950 and 1998. The alternatives will again halve these odds by 2015 (see Table 3.16-1), as well as reduce the quantities released. The Pacific Institute proposal provides a more reliable source of water to the delta while also providing the Basin states with predictability and California with a supply of water over its apportionment. As a reasonable alternative that satisfies the purpose and need of the surplus criteria, the Pacific Institute proposal and its impacts should be studied.

The California Colorado River Water Use Plan Must Be Included

3 Regarding the purpose and need of Interim Surplus Criteria, it is well known that the driving force behind their development has been the need to reduce California's reliance on Colorado River water above and beyond its apportionment; the 4.4 Plan is California's plan for doing so. See 1-22. The Six State, California and Shortage Protection Alternatives all include implementation of the 4.4 Plan in their modeling assumptions (3.3-9-10). Without the 4.4 Plan it is impossible to measure the quantities of water involved and impossible to gauge California's compliance. However, no version of the 4.4 Plan has been included in the DEIS. The California 4.4 Plan must be made publicly available, as quickly as possible, for public review and comment before the FEIS is released.

Seven States Alternative May Not Appear in the FEIS as the Preferred Alternative

4 On August 8, 2000, Reclamation published a notice of availability of information – the

1: See response to Comment 11-2 and 11-6.

2: See the response to Comment 11-2 and 11-6.

3: The 4.4 Plan has been superseded by California's draft Colorado River Water Use Plan (CA Plan), which has been publically available from the Colorado River Board of California. For more information see response to Comment 11-11.

4: Based on experience gained in modeling the operation of the alternatives in the DEIS, it was apparent to Reclamation that the shortage triggers proposed by the Seven States would place the effects of operating with those triggers and their related provisions in the midst of the range of the alternatives presented in the DEIS. It was also apparent that the effects of the Seven States Proposal would relate to those of other alternatives as a matter of degree rather than as new and different kinds of impacts. The preferred alternative in this FEIS derived from the Seven States Proposal has been subjected to the same analysis as the other alternatives in the FEIS.

cont'd

Seven States proposal – related to this DEIS. 65 Fed.Reg. 48531. While it appears in substance to be another alternative, Reclamation has stated that it will analyze the issues and information in it along with all other public comments on the DEIS, and will not extend the comment period, id., despite the fact that it is modeling the proposal. Even though the 'information' is the "product of significant effort" by the States, Reclamation may not view this new information as an alternative until the proposal's modeling runs and impacts have been subject to the NEPA processes of public notice and comment.

5

Furthermore, the proposal in its current form is not within the purpose and need of the interim criteria and is therefore an inadequate proposal. The impetus behind the interim criteria has been increased predictability of availability of surplus waters that California deems necessary to meet its needs until conservation measures are in place that have reduced consumption to 4.4 maf. The Seven States proposal does not provide a starting line by which to measure California's consumption, but given that the state has diverted up to 5.2 maf in recent years and that it expects to conserve a maximum of 490,000 af by 2016, California will not reach the 4.4 maf goal. Section VIII affirms this position by setting standards for enforcement that are even lower than its expected goals. Only when the surplus criteria is based on California reducing its take of the Colorado River to its 4.4 maf share should the criteria be implemented.

6

Lastly, the Seven States proposal, in sections IV.B.3.d. & f., excessively constrains the Secretary's discretion, which is simply unacceptable. Allocation of unused apportionment and of surplus has always been entirely within the Secretary's discretion but this proposal attempts to restrict it further than surplus criteria require.

Compliance with the Endangered Species Act

7

The scope of the ESA Section 7 consultation on the Interim Surplus Criteria is of enormous importance yet contains several flaws. First, section 5.3.3 must be amended to read that the action area "will be within the 100-year floodplain and Lakes Mead, Mohave and Havasu to full pool elevations of the Colorado River *and downstream to the Gulf of California*" (5-2) (emphasized text added). In this DEIS Reclamation identifies the potential for impacts to the vaquita, totoaba, southwestern willow flycatcher and Yuma clapper rail from the decrease in frequency and amount of freshwater flows to the delta. Therefore, in an ESA consultation where the 'action area' includes *"all areas* to be affected directly or indirectly by the Federal action and not merely in the immediate area involved in the action," 50 C.F.R. § 402.02 (emphasis added), and the Colorado River delta is clearly affected by the proposed action, the scope of the analysis must include the reach of the river and its floodplain down to the Gulf.

In addition, section 5.3.3 on ESA compliance refers *only* to the U.S. Fish and Wildlife Service in caption and text, implying that the National Marine Fisheries Service, the agency with jurisdiction over the vaquita and totoaba, have not been contacted regarding this consultation. See also Letter from Rodney R. McInnis, Acting Regional Administrator, NMFS to David Hogan, Center for Biological Diversity, of July 13, 2000 ("the Bureau of Reclamation has not

5: Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need for the proposed action, Reclamation policy and operational procedures.

6: The preferred alternative in this FEIS would not change the Secretary's discretion regarding the regulation of Colorado river flows, which stems from the Law of the River. Clause IV.B.3.f contained in the Draft Seven States Proposal is not included in the preferred alternative.

7: Reclamation is consulting with the Service for the delta area of Mexico, as discussed in Section 5.3.4 of the FEIS. The action area extends to the Sea of Cortez.

cont'd contacted NMFS regarding informal or formal ESA consultation on the Department of Interior's Colorado River Interim Surplus Criteria") (Attached). This is in violation of the ESA and contrary to a memo indicated that this consultation has occurred and should continue. See Memorandum from John Leshy, Solicitor to Eluid Martinez, Commissioner, of August 14, 2000. We hope that the August 14 memo is more indicative of the consultation that is occurring on the proposed action and that consultation with both FWS and NMFS continues.

Transboundary & Cumulative Environmental Impact Analysis is Inadequate

8 We were encouraged that Reclamation included an analysis of transboundary impacts in the DEIS. However, our hopes that past recognition of the sparse ecological and biological data on the vaquita and totoaba and their effects of modified river flows and water quality would have spurred additional research were dashed when we saw that the most of the analysis of the vaquita and totoaba were taken straight from the Description and Assessment of Operations, Maintenance, and Sensitive Species of the Lower Colorado River (Reclamation 1996). This is especially disappointing because Reclamation already knows its ongoing activities in the Lower Colorado River may affect the totoaba and that the vaquita is the world's rarest cetacean.

9 The DEIS omits any discussion of cumulative impacts resulting from the actions in the above Biological Assessment, as well as impacts from the California 4.4 Plan (not referenced in the DEIS) and off-stream banking regulations. For example, Reclamation has found that current operations along the LCR may affect the endangered totoaba, citing the lack of freshwater flows to the delta as a factor. Offstream banking, as well as the interim criteria, will reduce the amount of and probability of freshwater flows to the delta. See Biological Assessment for Proposed Rule for Offstream Storage of Colorado River Water and Delivery of Intentionally Created Unused Apportionment in the Lower Division States (1998) at Table IV-3. There is no attempt to accumulate or mitigate for these impacts. Environmental values and protections are not factors in Reclamation's hydrological models, thus this lack of cumulative impacts analysis is pervasive in the DEIS.

Recommendations

10 Overall, we recommend that this DEIS expand its scope, taking into account impacts not only downstream of the NIB, but downstream of the SIB into Mexico and the Colorado River delta. Without discussion or analysis of the impacts, mitigation is impossible. We hope that expansion of the NEPA analysis will result in an expanded ESA consultation and protection and recovery of the critically endangered ecosystem that has been divided by an arbitrary line. A Supplemental DEIS must also include the Pacific Institute proposal, as well as Reclamation's models and impacts analysis for the Seven States submission.

4

8: Regarding the effects on species found in both Mexico and the United States (such as the southwestern willow flycatcher), Reclamation is consulting with the U.S. Fish and Wildlife Service. For potentially affected species found only in Mexico, Reclamation is consulting with the National Marine Fisheries Service. Concurrent with these consultations, Reclamation is also continuing its dialog with Mexico to reach mutually agreeable solutions.

9: Cumulative transboundary impacts are discussed in Section 4.2. Implementation of the Lower Colorado River Multi-Species Conservation Program (LCRMSCP) is expected to prevent adverse cumulative effects to the biological resources of the lower Colorado River. The LCRMSCP is being developed to mitigate the adverse effects on resources from current and future water diversions and power production with the cooperation of federal, state, Tribal and other public and private stakeholders. The LCRMSCP will include the creation and enhancement of habitat and augmentation of native fish species populations from Lake Mead to the SIB. The LCRMSCP is evaluating the appropriate amount of acreage for restoration. Currently, acreage estimates range from a low of 3,000 acres to a high of 80,000 acres of riparian woodland, marsh, open water and mesquite habitat.

10: Comment noted. Reclamation believes that the level of analysis for energy resources presented in the EIS appropriately identifies the potential effects of interim surplus criteria.

Sincerely,

David Hogan
Desert Rivers Coordinator
Center for Biological Diversity

Kara Gillon
Associate Counsel
Defenders of Wildlife

Claudio Torres Nachón
Director
El Centro de Derecho Ambiental e Integración Económica del Sur, A.C.

Jennifer Pitt
Senior Resource Analyst
Environmental Defense

Timothy Flood
Conservation Coordinator
Friends of Arizona Rivers

David Orr
Field Director
Glen Canyon Action Network

Brian Gibbons
Executive Director
Glen Canyon Institute

Michael Cohen
Research Associate
Pacific Institute for Studies in Development, Environment, and Security

Steve Glazer
Chair, Colorado River Task Force
Sierra Club

Jamie Newlin
Vice Chair, El Paso Group
Sierra Club

Fred Cagle
San Diego, CA

Jaqueline Garcia-Hernandez
Tucson, AZ

5

Sep. 01 2000 11:48AM P2

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

July 13, 2000

Mr. David Hogan
Center for Biological Diversity
P.O. Box 628
Santa Ysabel, California 92070

Dear Mr. Hogan:

This letter is in response to the Center for Biological Diversity request under the Freedom of Information Act (FOIA), dated June 5, 2000, for documents relating to an informal or formal Endangered Species Act (ESA) consultation which may have occurred between the Bureau of Reclamation and the National Marine Fisheries Service (NMFS) with regard to the Department of the Interior's Colorado River Interim Surplus Criteria.

I understand that you spoke with Ms. Deanna Harwood, staff attorney in the Office of General Counsel, National Oceanic and Atmospheric Administration (NOAA) on July 7, 2000. Ms. Harwood and I appreciate your acceptance of our request for additional time in responding to your request. It is our understanding from that conversation that your interest is limited to whether the Bureau of Reclamation had initiated informal or formal ESA consultation with NMFS. As the Bureau of Reclamation has not contacted NMFS regarding informal or formal ESA consultation on the Department of Interior's Colorado River Interim Surplus Criteria, we have no documents responsive to your request.

Although this does not constitute a denial of your request because there were no records available or withheld, you may appeal this determination within 30 days of receipt of this letter. Appeals shall be addressed to the Office of the General Counsel, Room 5882, U.S. Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230, and prominently mark your letter and the outside envelope, "FOIA Appeal." Your appeal should state the reasons why you believe this determination was in error. Attach a copy of your original request and a copy of this letter to your appeal.

Sincerely,

Rodney R. McInnis
Acting Regional Administrator

cc: Deanna Harwood

Printed on Recycled Paper

Via Fax and Mail

September 8, 2000

Ms. Jayne Harkins
Attention BCOO-4600
Lower Colorado Region
Bureau of Reclamation
PO Box 61470
Boulder City, NV 89006-1470

Dear Ms. Harkins:

These comments are submitted on behalf of Defenders of Wildlife (Defenders). Defenders is a national non-profit, public-interest organization with over 400,000 members and supporters. Defenders works to preserve the integrity and diversity of natural ecosystems, prevent the decline of native species, and restore threatened habitats and wildlife populations.

Thank you for the opportunity to review and to comment on the Draft Environmental Impact Statement ("DEIS") on Colorado River Interim Surplus Criteria. We are supportive of the overall goal of returning California to its 4.4 maf share of the Colorado River, yet its achievement comes at the expense of riparian and aquatic habitats downstream to the Colorado River delta in Mexico. 1 The diversion of millions of acre-feet of water and the impoundment of millions more has eroded and desiccated the delta. Fortunately, since the 1980s flood flows have revegetated the delta which has grown to 150,000 acres, though still a mere 5% of its historic size. As the Department of Interior has recognized, 80 percent of the best Lower Colorado River habitat is in Mexico, yet serious environmental harms are occurring there. The interim surplus criteria is a chance to avoid and mitigate these harms, yet Interior completely passes up this opportunity.

Therefore, we are disappointed that the Bureau of Reclamation ("Reclamation") rejected consideration of the Pacific Institute alternative that would have provided a reliable and timely delivery of freshwater flows to the Gulf of California. We also have several procedural and substantive concerns with the new Seven States proposal, as well as with the DEIS itself. We 2 recommend that a Supplemental DEIS precede the Final EIS for several reasons: the DEIS omits a reasonable alternative; lack of impacts analysis on the 7 States proposal precludes effective public comment; the California 4.4 Plan is not available for comment; the transboundary and cumulative impacts analyses are flawed; and endangered species impacts merit more research and evaluation.

National Headquarters
1101 Fourteenth Street, NW
Suite 1400
Washington, DC 20005
Telephone: 202 682-9400
Fax 202 682 1331
http://www.defenders.org

1: The overall goal of the interim surplus criteria is not to return California to it 4.4 maf apportionment. As discussed in Section 2.2.3 of the EIS, providing flows to the Gulf of California would not meet the purpose and need for ISC. The status of habitat along the Colorado River in Mexico is discussed in an analysis of impacts of the interim criteria. Reclamation has concluded that the alternatives would not result in a significant additional harm to downstream habitat and is working with Mexico to collaboratively solve problems in Mexico.

2: A discussed in Section 2.2.3, Reclamation considered the Pacific Institute proposal but eliminated it from detailed analysis. It mirrors the Six States Alternative which was analyzed in depth. The portion of the Pacific Institute proposal calling for delivery of water to the Gulf of California is not within the purpose and need for the action and thus not analyzed. A Supplemental DEIS is not required because it did consider a portion of a reasonable alternative as noted above. See Response 13-4. The Seven States draft proposal and Reclamation's Basin States Alternative analyzed in the EIS are within the range of the other alternatives analyzed and their impacts are very similar to the Six States and California Alternatives. The California 4.4 Plan is not an issue in this EIS and a working draft of California's Colorado River Water Use Plan published in May 2000 has been available for public review through the Colorado River Board of California. Endangered species, transboundary, and cumulative impact analyses have been updated as a normal course proceeding from a draft to a final EIS and no supplement is required.

Exercise of the Secretary's Discretion Would Easily Cure Several of these Flaws

The failure to fully acknowledge the Secretary's discretion in managing the Lower Colorado River, especially when declaring a surplus, is the source of many of the DEIS's deficiencies.

Allocation of surplus water is a discretionary function of the Secretary that can and should be exercised consistent with other responsibilities incumbent upon him for allocating the benefits of the river. Past management decisions and allocations were made before most other responsibilities were articulated in U.S. law and policy. This has resulted in serious environmental harm. The Secretary can and should now use his discretion to ensure that his decisions result in no further harm, and where possible, in an improvement in environmental quality. A myopic characterization of the Secretary's discretion hinders meaningful assessment of the Pacific Institute alternative, transboundary and endangered species impacts, and ESA compliance.

3

Contrary to Reclamation's present public assertions, there is significant discretion in the Law of the River. The Boulder Canyon Project Act and Supreme Court Decree in Arizona v. California established the priorities for Colorado River waters and set flood control, navigation improvement, and flow regulation as the first priorities. The Decree enjoins the Secretary to release water in accordance with these priorities. The other top priorities, regulating the flow of the river and improving navigation, are purely within the Secretary's discretion. See Laughlin River Tours v. Bureau of Reclamation, 730 F.Supp. 1522, 1524 (D.Nev. 1990). Releases for navigation and regulation of the flow, like flood control releases, are not subject to the injunction for consumptive use amounts in Article II of the Decree. The Secretary has a public trust responsibility to protect resources that belong to the public and are so important to society that private uses cannot be allowed to interfere with public access and uses.

Reclamation asserts that "[w]ater cannot be released from storage unless there is a reasonable beneficial use for the water unless required for flood control or dam safety." (3.3-1). Time and again Reclamation claims that the same 'Law of the River' that grants the Secretary of the Interior broad discretion in managing the Lower Colorado River also curtails his ability to release water and manage the river's flow. This is even more amazing in a discussion of surplus declarations, a completely discretionary task. While in the past Reclamation has narrowly defined its discretion in order to avoid ESA consultation, in this case, Reclamation has done so in order to avoid analyzing an alternative that accounts for the entire Colorado River ecosystem, and to narrow the scope of NEPA and ESA consultation.

4

When the Secretary announced last December that surplus must be determined and allocated with no net loss of environmental benefits, he set a significant environmental standard. As the Department of Interior has recognized in past statements and in the Joint Declaration to Enhance Cooperation in the Colorado River Delta, the delta is a integral part of the Lower Colorado River ecosystem. No water shall be considered surplus until the Secretary has been

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3: See above response. Note that the EIS presents information with regard to Colorado River flows to Mexico under baseline conditions and the alternatives. Note also that additional information has been added to the discussion of these flows in Section 2.16.5 of the FEIS. The allocation of surplus water is not discretionary. The decree issued March 9, 1964 by the United States Supreme Court in Arizona v. California apportioned surplus water for use as follows: 50% for use in California, 46% for use in Arizona and 4% for use in Nevada. However, the Secretary must annually adopt an Annual Operating Plan (AOP) for operation of the Colorado River reservoirs. The AOP establishes the plan of operations for Colorado River reservoirs during the coming year and establishes whether the coming year will be a surplus, normal or shortage year. The Secretary's discretion lies in his determination as to whether sufficient water is available for release to satisfy consumptive use in Arizona, California and Nevada in excess of 7.5 maf. In making this determination, the Secretary considers existing water storage conditions in the Colorado River basin and projected inflows and beneficial consumptive use requirements of Colorado River mainstream use. The respondent commented that releases for navigation and regulation, like flood control releases, are not subject to the injunction for consumptive use amounts set forth in Article II of the Decree. However, in the case cited by the respondent, Laughlin River Tours, Inc. et al. v. Bureau of Reclamation, et al., the United States District Court stated the following: "each of the priorities is interdependent on the other, and the Secretary has broad discretion in meeting the needs of [lower] priorities. . . . " The court found that Section 6 of the Boulder Canyon Project Act does not require the Secretary to maximize first priority purposes before establishing criteria to meet lower priorities. The Secretary must operate the Colorado River System in a manner that complies with the water release requirements set forth in Article II of the Decree, but each priority cannot be looked at individually at the expense of ignoring the others.

4: As discussed above, Reclamation agrees that the Secretary not only has broad discretion in making surplus water available for beneficial use in the Lower Division states while meeting treaty obligations to Mexico, but is responsible for doing so. Reclamation's requirement to release water only for reasonable beneficial use pertains only to use within the Lower Division states; we are not responsible for accounting for use of water delivered to Mexico. Reclamation has not avoided ESA consultation by narrowly defining its discretion; in fact it was the process of consulting on on-going operations that finally resulted in a clear definition of the Secretary's discretionary authority. Reclamation believes the scope of this NEPA analysis and concurrent ESA consultation for proposed interim surplus criteria is consistent with the Secretary's discretion and responsibilities as water master of the lower Colorado River.

5: The Secretary's statements, in his December 1999 address, were not intended to be contrary to federal law or treaty. The Defenders of Wildlife definition of surplus is not contained in the Decree. The Secretary recognized, in his statement, the need for greater cooperation with Mexico and for consultation on delta issues in the Joint Declaration. Other mechanisms that the Department of the Interior, and particularly the Bureau of Reclamation, have been working on include the Joint Declaration and the follow-up conference held October 11, 2000, in Washington, D.C. Reclamation is also actively participating in the Fourth Technical Work Group (Delta Task Force), which is a bi-national group working to conduct a joint baseline study of the water and natural resource conditions in the Cienega de Santa Clara and the adjoining lowermost part of the delta of the Colorado River utilizing the resources of these agencies in monitoring, field work, photography and data exchange.

cont'd assured, through a plan of releases of sufficient instream flows, mitigation, and other measures, that additional consumptive use would cause 'no net loss' of the environmental benefits that would result if the potential "surplus" were left in the river. The Secretary clearly has the discretion to meet this challenge and the Mexican section of the IBWC has also requested that the environment be considered a user of Colorado River surplus waters. In the spirit of the Joint Declaration, the Secretary must not renege on this gesture of goodwill.

Range of Alternatives Should Have Included Pacific Institute Proposal

6 The range of alternatives is an important piece of the National Environmental Policy Act ("NEPA") - "This section is the heart of the environmental impact statement." 40 C.F.R. § 1502.14. Contrary to Reclamation's conclusion in the DEIS, the Pacific Institute proposal is not within the range of alternatives in the document (2-3). That proposal has been endorsed by 12 groups, including Defenders of Wildlife, representing millions of citizens. Pacific Institute's proposal was submitted specifically to dedicate perennial flows to the delta before declaration of a partial surplus and flood waters to the delta before declaration of a full surplus. No other alternative contains these or any other environmental protection or restoration provisions.

7 This is one of several instances where Reclamation has improperly stated its authority regarding management of the River. The DEIS states that "the delivery of water to or through Mexico would require modification of the Treaty" (2-3). This is incorrect. The Treaty requires the U.S. to deliver a minimum quantity of flows to Mexico; it does not limit the amount of water the U.S. may deliver. In fact, in 1998, the U.S. delivered more than 3 maf over Treaty obligations; in 1984, the U.S. delivered nearly 14 maf over Treaty obligations. See Figure 3.1-6, Salton Sea Restoration Draft EIS/EIR (2000).

8 Colorado River flows that reach the Delta are the result of flood control releases in the U.S. Deliveries to Mexico were greater than 1.7 maf in only half of the years between 1950 and 1998. The alternatives will again halve these odds by 2015 (see Table 3.16-1), as well as reduce the quantities released. The Pacific Institute proposal provides a more reliable source of water to the delta while also providing the Basin states with the predictability of surplus declarations that they seek. As a reasonable alternative that satisfies the purpose and need for surplus criteria as well as the overall purpose of NEPA - "to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man" - the Pacific Institute proposal and its impacts should be studied.

New Information From the Seven States Cannot Be an Alternative

9 On August 8, 2000, Reclamation published a notice of availability of information - the 7 States proposal - related to this DEIS. 65 Fed.Reg. 48531. While it appears in substance to be another alternative, Reclamation has stated that it will analyze the issues and information in it along with all other public comments on the DEIS, and will not extend the comment period, id., despite the fact that it is modeling the proposal. Even though the 'information' is the "product of

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6: An EIS need not consider an infinite range of alternatives, only reasonable and feasible ones and those reasonably related to the purposes of the project that afford a reasoned choice by the decision maker. The rule of reason shall be utilized in development of a range of alternatives. NEPA does not require a separate analysis of alternatives which are not significantly distinguishable from alternatives actually considered, or which have substantially similar consequences. For these reasons, Reclamation considered the Pacific Institute proposal but eliminated it from further analysis because part of it did not meet the purpose and need of the proposed action and the remainder of the alternative mirrored the Six State's Alternative which was analyzed in depth for the DEIS. Please also refer to the response to Comment 11-2.

7: The determination of guidelines or criteria for the surplus defined in the Treaty is beyond the purpose of and need for interim surplus criteria. Water delivery to Mexico is regulated by the Treaty and various treaty modifications based on consultation between the United States and Mexico. The 1984 and 1998 deliveries were uncontrollable flood flows.

8: Because the domestic elements of the Pacific Institute's proposed interim surplus criteria are similar to, and within the range of, those contained in the alternatives already being analyzed, and because the delivery of additional water to Mexico is beyond the purpose and need for interim surplus criteria, the Pacific Institute's proposal is not analyzed in this FEIS.

9: The stated purpose is to provide greater predictability of when surplus water is and is not available to assist in the Secretary's management of the lower Colorado River for all states and water users. Reclamation has fashioned a new alternative based on the Seven States proposal and believes this alternative does fit within the purpose and need for this action.

significant effort" by the States, Reclamation may not view this new information as an alternative until the proposal's modeling runs and its environmental impacts have been subject to the NEPA processes of public notice and comment.

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The 7 States proposal as it now reads is not a viable NEPA alternative because it is not within the purpose and need of the interim surplus criteria. The impetus behind the interim criteria has been increased predictability of availability of surplus waters California deems necessary to meet its needs until conservation measures have reduced diversions to 4.4 maf/y. The 7 States proposal does not provide a starting line by which to measure California's consumption, but given that the state has diverted up to 5.2 maf in recent years and that it expects to conserve a maximum of only 490,000 af by 2016, California will not reach the 4.4 maf goal. Section VIII affirms this position by setting standards for enforcement that are even lower than its expected goals.[1] Only when the surplus criteria is based on California committing to reduce its take of the Colorado River to its 4.4 maf share should any interim surplus criteria be implemented.

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There are also several aspects of the Guidelines that are simply unacceptable. Section IV, *Determination of Lake Mead Operation During the Interim Period* of the 7 States proposal, in subsections B.3.d. & f., excessively constrains the Secretary's discretion and must be removed. Allocation of unused apportionment and of surplus has always been entirely within the Secretary's discretion but this proposal attempts to restrict it further than interim criteria require.

The DEIS Contains Numerous Deficiencies Which Only a Supplemental DEIS Can Repair

The California 4.4 Plan Must Be Made Available

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Regarding the purpose and need of Interim Surplus Criteria, it is well known that the driving force behind their development has been the need to reduce California's reliance on Colorado River water above and beyond its apportionment; the 4.4 Plan is California's plan for doing so. See I-22. The Six State, California and Shortage Protection Alternatives all include implementation of the 4.4 Plan in their modeling assumptions (3.3-9-10). Without the 4.4 Plan it is impossible to measure the quantities of water involved. Without the 4.4 Plan it is impossible to gauge California's compliance. However, no version of the 4.4 Plan has been included in the DEIS. The California 4.4 Plan must be made publicly available, as quickly as possible, for public review and comment before the FEIS is released.

[1] It bears note that although the chart on 65 Fed. Reg. 48535 expects California will reduce its take by 340,000 af by 2006, 460,000 af by 2011 and 490,000 af by 2016, the chart illustrating the measure of enforcement requires conservation of only 280,000 af by January 1, 2006 and 380,000 af by January 1, 2011, and no goal for 2016.

10: After a review of the criteria in the Working Draft Seven States Proposal, Reclamation formulated the Basin States Alternative to match that proposal as closely as possible while maintaining consistency with the Law of the River and current operating policy. Reclamation considered the informal discussions with the public during the public review period and comments received on the DEIS.

11: The California Colorado Water Use Plan is not part of this federal action (see response 57-15). The quantities of surplus water made available under each surplus alternative are now detailed in Chapter 2. The specific deliveries to California under the preferred alternative (Basin States) are shown in Figure 3.4-2 and detailed in Attachment H. A draft of the Plan was made available on Coachella Valley Water District's website (www.cvwd.org) prior to the release of the DEIS.

Allowable Uses of Surplus Waters Must Be Limited

12 Although not discussed in the DEIS, the allowable beneficial uses of the surplus waters will, to an extent, dictate the future availability of surplus waters and thus warrant comment. For example, under some circumstances a state may dedicate considerable amounts of surplus water to groundwater banking rather than municipal and industrial (M&I) uses, thus lowering reservoir levels to the point where space-building or flood control releases are not necessary. Any interim surplus criteria must limit the uses of its water to M&I, particularly in California where the aim of the surplus declaration is to keep the Colorado River Aqueduct full. Likewise, any surplus criteria must limit the declaration of available surplus to that necessary to keep the CRA full to meet MWD's 1.212 maf entitlement, and no more. Thus, the 7 States proposal, IV.B.2.a., calling for 1.250 maf for the CRA during a Full Domestic Surplus, must be amended to supply no more than 1.212 maf.[2]

Affected Environment and Environmental Consequences

Assumptions

Reclamation makes three assumptions relating to the operation of the baseline and the alternatives. These assumptions need elaboration before issuance of the Final EIS. The first, assumption of implementation of the 4.4 Plan, is discussed above.

13 Next, according to the assumptions common to all, Mexico will receive a surplus declaration of 200 kaf only under Lake Mead flood control releases (3.3-9). As stated earlier, the Treaty sets only a minimum delivery requirement, not a maximum. Mexico is eligible to receive surplus waters in years other than flood control releases; to assume otherwise may tie the U.S.'s hands in future negotiations under the Treaty. This DEIS may not *de facto* establish a Mexico surplus declaration trigger.

14 Lastly, at the August 15 Hydrologic Modeling Meeting, Reclamation announced that operation of the Yuma Desalting Plant beginning in 2015 is an assumption common to all alternatives. Yet, it was not included in the DEIS and thus there is no clarification as to why it is an assumption. Its omission is doubly troublesome because operation of the plant will have significant environmental impacts on the delta, particularly the Cienega de Santa Clara. Section 3.16.6.1, POTENTIAL EFFECTS TO HABITAT IN MEXICO, summarily concludes that this action will not affect the Cienega without observing that operation of the plant would cut return flows to the

[2] In addition, Section IV.B.1.a. should be amended to read "The amount offset under 2.) shall not be less than 100,000 af in 2001 and will be increased by 20,000 af over the Interim Period so as to equal 400,000 af in 2016." When stated this way, it makes more sense, that California will increase the amount of groundwater withdrawals and other options over the 15 years, rather than decrease.

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12: Reclamation agrees that the use of surplus water for groundwater recharge when storage in Lake Mead and Lake Powell have been partially depleted increases the risk of subsequent shortages and intensifies the effects on other resources. This is recognized in the derivation of the permitted amounts of surplus water to be made available to the Lower Division states with the lower Lake Mead water level surplus triggers. As can be seen in the surplus water quantities cited in Chapter 2, the surplus water available would be lower at lower Lake Mead water levels. However, such provisions are not included in the Shortage Protection Alternative because that alternative represents an extreme that helps to define the range of options for interim surplus criteria.

13: The purpose of this action, as stated in Section 1.1.1 of this FEIS, is to adopt interim surplus criteria for delivery of surplus water to Arizona, California and Nevada. This proposed action is NOT intended to identify conditions when Mexico may schedule this additional 0.2 maf, as stated in Section 1.1.4 of this FEIS. Delivery of surplus water to Mexico during Lake Mead flood control releases is strictly a modeling assumption as stated in Section 3.3.3.3.

14: Operation of the Yuma desalting plant was strictly a modeling assumption. It should be noted that the U.S. recognizes that it has an obligation to replace, as appropriate, the bypass flows. The assumptions made herein, for modeling purposes, do not necessarily represent the policy that Reclamation will adopt for replacement of bypass flows. The assumptions made with respect to modeling the bypass flows are intended only to provide a thorough and comprehensive accounting of Lower Basin water supply. The U.S. is exploring options for replacement of the bypass flows, including options that would not require operation of the Yuma Desalting Plant.

Cienega to a third of their current flows, while tripling their salinity.

Scope

15 The potentially affected area should not end at the NIB. NEPA directs federal agencies to analyze the effects of proposed actions to the extent that they are reasonably foreseeable, regardless of where those impacts may occur. The DEIS includes a transboundary impacts analysis, in accordance with CEQ Guidance on NEPA Analyses for Transboundary Impacts, yet limits the affected area to the NIB between the U.S. and Mexico. This is inconsistent with the scope several of the connected and ongoing actions - the Lower Colorado River Multi-Species Conservation Program and Biological and Conference Opinion on Lower Colorado River Operations and Maintenance - and with the scope of the actual impacts.

Water Quality

16 A more liberal declaration of surplus will lower Lake Mead and adversely affect the water quality of the Colorado River. It is a violation of NEPA simply to assume that the Colorado River salinity control program will maintain the Clean Water Act's water quality criteria. NEPA requires that Reclamation take a hard look at the potential impacts of a project and perform a rigorous analysis based on the best available information.

One author has theorized that a 9 maf drawdown would permanently increase salinity by 96 mg/L below Hoover Dam and by 72 mg/L at Parker and Imperial Dams. This increase would likely offset the impact from any salinity control projects. In addition, any beneficial impacts from a temporary increase in flows would be minor compared to this permanent increase, and would only benefit flows to Parker because the largest diversions are at Parker and Imperial. TDS levels would fall 6 mg/L for each 1 maf released for each three-year average, which requires a 3 maf release over three years and a permanent increase of 32.1 mg/L at Hoover Sam and 23.7 mg/L at Parker and Imperial Dams with a temporary reduction of 6 mg/L. See *Salinity of Colorado River Water: Causes, Consequences, and Remedies*, "Water Strategist," vol.10, no.1 (Spring 1996). The Mexican section of the IBWC has also cited the increase in downstream salinity as an impact. (Att. Q.) Reclamation cannot in good faith dismiss these, and other, concerns. (3.16-3.)

17 While the effects of interim criteria on water quality among the various alternatives may be accounted for in the modeling, the effects of the surplus declarations themselves are not. As a result, this section requires elucidation. For example, the DEIS estimates that 1,478,000 tons of salt will need to be removed from the Colorado River system, (3.5-6), but provides no source or rationale for that number. Does this estimation take into account a drawdown of Lake Mead, or only current and planned projects?

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15: The FEIS includes an analysis of impacts for the Limotrophe Division (from the NIB to the SIB). The area of potential effect described in Section 3.2 is associated with areas in the U.S. The transboundary analysis considers potential effects in Mexico consistent with NEPA and CEQ guidelines. The area considered in Mexico is described fully in Section 3.16.

16: The seven state Colorado River Basin Salinity Control Forum, in cooperation with Reclamation, USDA, BLM, the US Fish and Wildlife Service and EPA has, since 1972, been overseeing the plan of implementation to maintain the salinity at or below the adopted criteria. Maintenance of the criteria is the result of rigorous analyses. The plan is reviewed every three years and approved by EPA.

17: The basis for the 1,478,000 tons of salt control is described in the "1999 Review - Water Quality Standards for Salinity Control Colorado River System" prepared by the Forum.

Transboundary Impacts Analysis is Flawed

18 Existence of a political boundary has provided opportunity to muddy the extent of the Secretary's discretion in managing the Lower Colorado River. Just as in the section dismissing the Pacific Institute proposal, the DEIS contains misleading statements regarding water deliveries to Mexico and flows beyond the border. For example, the DEIS avers that the reductions in Colorado River flows that have adversely affected the delta ecosystem "have been instituted through an international treaty." (3.16-13). As explained above, the Treaty sets *minimum* requirements for deliveries to Mexico; the DEIS should clarify that reductions in historic flow to the delta are the result U.S. actions.

19 Further, the claim that "potential effects on Mexico's resources cannot be specifically determined due to the uncertainty of water use once it flows across the NIB into Mexico," (3.16-1), is simply untrue. Morelos Dam, to which the U.S. is obligated to deliver a portion of Mexico's Treaty waters, is below the NIB. Twenty-three miles from the NIB to the SIB is bordered by the U.S. By managing and bordering the river below the NIB, the U.S. cannot claim ignorance once water crosses the NIB. In fact, Reclamation does possess data concerning the use of water in Mexico:

> relatively little of the water in excess of the 1.5 to 1.7 MAFY treaty allocation is diverted for irrigation. Diversions to irrigation canals below Morelos Dam exceeded 1.7 MAFY in only 14 of the 24 years since 1950 in which deliveries to Mexico were greater than 1.7 MAFY. In those 14 years, an average of about 523,000 AFY was diverted to irrigation canals. . . . Therefore, on average, about 10 percent of the flood flows were diverted for irrigation in those 14 years.

20 Salton Sea Restoration Draft EIS/EIR (Reclamation 2000) at 3-23. In other words, in 24 of 48 years excess flows have reached Morelos Dam and in 14 of those 24 years Mexico diverted a small fraction of that water. In all of those 24 years Mexico sent flows to the delta and in the other 24 years no flows reached the delta. Interim surplus criteria will ensure that excess flows reach the delta even more sporadically, if at all.

Sensitive Species

21 We were encouraged that Reclamation included an analysis of transboundary impacts in the DEIS. However, our hopes that Reclamation would initiate research efforts to combat their earlier recognition of the sparse ecological and biological data on the vaquita and totoaba were dashed when we saw that the most of the analysis of the vaquita and totoaba were taken straight from the Description and Assessment of Operations, Maintenance, and Sensitive Species of the Lower Colorado River (Reclamation 1996). The deficiencies from that analysis have not been remedied and carry the same lack of research and information from 1996 into 2000. This is especially disappointing because Reclamation already knows its ongoing activities in the Lower Colorado River may affect the totoaba and is unsure about their effects on the vaquita, the

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18: Comment noted. Section 3.16.6.1 has been revised to state that "... reductions have been instituted while meeting the requirements of an international treaty and the diversion and use of such Treaty water is solely of Mexico's discretion." At least since execution of the Treaty, it is incorrect to state that responsibility for reductions of flows to the Colorado River delta lies with United States interests alone.

19: Section 3.16 has been revised to reflect available information at NIB. Mexico retains control at Morelos Dam as to what is done with the water that arrives there. However, excess water diverted may not be consumptively used in Mexico, but released back to the Rio Hardy and Colorado River as waste and/or irrigation drainage. No data is available to Reclamation on the amount of these wasteway and drainage return flows, so final disposition of diverted water is not known by Reclamation.

20: See above response. Note that the EIS presents information with regard to Colorado River flows to Mexico under baseline conditions and the alternatives. Note also that additional information has been added to the discussion of these flows in section 3.3.4.5.4 entitled "River Flows between Imperial Dam and Morelos Dam" of the FEIS.

21: See response to Comment 10-8.

cont'd | world's rarest marine mammal.

Moreover, there are numerous references in the text for which complete citations are not provided or for which basic information has been overlooked. Standing alone, these omissions are not particularly serious; however, in the context of full disclosure and rigorous investigation, they raise questions about the quality of the workmanship. Omissions coupled with conclusions not supported by existing data raise real concerns about the product. Please amend the following pages:

(3.16-16)

22 | • the vaquita is listed as endangered by the U.S. government, 50 Fed.Reg. 1056 (January 9, 1985); the Mexican government, Normas Oficiales Mexicanas NOM-059-ECOL-1994; and 'critically endangered' by the IUCN;

23 | • (Taylor and Gerrodette 1993) is not in References Cited;

24 | • (Barlow et al. in press) should read (Barlow et al. 1997) and the reference should reflect that change. The title should read "First Estimates...." and contain an updated citation;

(3.16-17)

25 | • (Rojas-Bracho) is not in References Cited, and with no title or date, it is hard to determine its relevance;

26 | • impact analysis for the vaquita does not incorporate more recent research published in volume 15 of Marine Mammal Science;

27 | • the totoaba is listed as endangered by the U.S. government, 44 Fed.Reg. 29478 (May 21, 1979) and the Mexican government, Normas Oficiales Mexicanas NOM-059-ECOL-1994;

28 | • the analysis of effects on the totoaba must acknowledge that Reclamation has already found that its operations and activities in the Lower Colorado River may affect the totoaba;

29 | • the statement that the totoaba "was included in this assessment at the suggestion of the Service and a number of public stakeholders" should be removed. This appears to be taken from the Biological Assessment (1996) and is not applicable here;

(3.16-18)

30 | • status of a recovery plan for the southwestern willow flycatcher should reflect any changes since 1996;

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22: This information is included in Reclamation's analysis.

23: This correction has been made.

24: This citation has been corrected.

25. This citation has been added.

26: Recent research for the vaquita has been incorporated in the analysis.

27: The information has been cited in the analysis for the totoaba.

28: The analysis is recognizes effects of past, current and reasonably foreseeable operations on the totoaba as part of the baseline condition.

29: This statement has been removed. Reclamation has received input supporting and opposing analysis of impacts on the totoaba in Mexico.

30: The recent completion of a recovery plan for the southwestern willow flycatcher is noted in the analysis, and is limited to activities in the United States.

31 (3.16-24)
• similar to above, status of recovery actions for the Yuma clapper rail should reflect any changes since 1994;

32 (3.8-17)
• the yellow billed cuckoo has been petitioned for listing under the ESA and the FWS has published a 90 day finding that listing may be warranted.

Cumulative Impacts

33 The DEIS states that current circumstances and expected future actions have been "included in system modeling" and thus cumulative impacts have been "incorporated into modeling." (4-1.) Impacts from actions such as the California 4.4 Plan (canal linings, intrastate transfers, groundwater banking, etc.), interstate transfers through off-stream banking, the uses of surplus water and day-to-day operations and maintenance activities along the lower Colorado River are not included in the modeling. Environmental variables – fish and wildlife, endangered species, native vegetation – are not included in the modeling and must be described in the cumulative impacts section of the DEIS.

34 Cumulative impact is the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions . . ." 40 C.F.R. § 1508.7. See also Considering Cumulative Effects Under the National Environmental Policy Act (CEQ 1997). Reclamation has found that current operations along the LCR may affect the endangered totoaba, citing the lack of freshwater flows to the delta as a factor. See Description and Assessment of the Operations, Maintenance and Sensitive Species of the Lower Colorado River (Reclamation 1996). Offstream banking, as well as the interim criteria, will reduce the amount of and probability of freshwater flows to the delta. See Biological Assessment for Proposed Rule for Offstream Storage of Colorado River Water and Delivery of Intentionally Created Unused Apportionment in the Lower Division States (Reclamation 1998) at Table IV-3. There is no attempt to accumulate these environmental effects in the DEIS. Environmental values are not factors in Reclamation's hydrological models, thus this lack of cumulative impacts analysis is pervasive in the DEIS.

Mitigation

35 The direct, indirect and cumulative impacts to sensitive species, to native habitat, to water quality, and to the Lower Colorado River ecosystem as a whole is significant. According to CEQ guidance, a proposed action with significant effects must consider all of its effects on the environment, whether or not significant, and mitigation measures covering the range of impacts must be developed. See 40 C.F.R. §§ 1502.14(f), 1502.16(h), 1508.14. Furthermore, all relevant, reasonable mitigation measures that could improve the project are to be identified, even if they are outside the jurisdiction of the lead agency or the cooperating agencies, and thus would

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31: The analysis includes an update for the Yuma clapper rail.

32: This information on the yellow-billed cuckoo is included.

33: As discussed in the EIS, the potential effects on system conditions (including reservoir elevations and river flows) were determined by modeling potential future conditions under baseline conditions and each of the alternatives. To the extent possible, expected future actions that would affect system conditions were included in system conditions modeling, and the impacts of these actions are therefore accounted for in the resource analyses in Chapter 3 of the EIS. In addition, implementation of the LCRMSCP is expected to prevent adverse cumulative effects to the biological resources of the lower Colorado River. The LCRMSCP is being developed to mitigate the adverse effects on resources from current and future water diversions and power production with the cooperation of federal, state, Tribal and other public and private stakeholders. The LCRMSCP will include the creation and enhancement of habitat and augmentation of native fish species populations from Lake Mead to the SIB. The LCRMSCP is evaluating the appropriate amount of acreage for restoration. Currently, acreage estimates range from a low of 3,000 acres to a high of 80,000 acres of riparian woodland, marsh, open water and mesquite habitat.

Section 4.2 has been modified and Reclamation beleives that it has appropriately addressed potential cumulative effects of the proposed action.

34: See response to Comment 10-9.

35: No significant impacts have been identified that require specific mitigation. However, Section 3.17 has been added to the FEIS to discuss environmental commitments that Reclamation would undertake upon adoption of interim surplus criteria through the Secretary's Record of Decision.

cnt'd

not be committed as part of the RODs of these agencies. 40 C.F.R. §§ 1502.16(h), 1505.2(c). There is no discussion of mitigation in the Draft EIS; mitigation measures must be included in the Final EIS.

Compliance with the Endangered Species Act

36 The scope of the ESA Section 7 consultation on the Interim Surplus Criteria is of enormous importance yet contains several flaws. First, section 5.3.3 must be amended to read that the action area "will be within the 100-year floodplain and Lakes Mead, Mohave and Havasu to full pool elevations of the Colorado River *and downstream to the Gulf of California*" (5-2) (emphasized text added). In this DEIS Reclamation identifies the potential for impacts to the vaquita, totoaba, southwestern willow flycatcher and Yuma clapper rail from the decrease in frequency and amount of freshwater flows to the delta. Therefore, in an ESA consultation where the 'action area' includes "*all areas* to be affected directly or indirectly by the Federal action and not merely in the immediate area involved in the action." 50 C.F.R. § 402.02 (emphasis added), and the Colorado River delta is clearly affected by the proposed action, the scope of analysis must include the reach of the river and its floodplain downstream to the Gulf.

37 In addition, section 5.3.3 on ESA compliance refers *only* to the U.S. Fish and Wildlife Service in caption and text, implying that the National Marine Fisheries Service, the agency with jurisdiction over the vaquita and totoaba, have not been contacted regarding this consultation. Communications with NMFS confirm this. See Letter from Rodney R. McInnis, Acting Regional Administrator, NMFS to David Hogan, Center for Biological Diversity, of July 13, 2000 ("the Bureau of Reclamation has not contacted NMFS regarding informal or formal ESA consultation on the Department of Interior's Colorado River Interim Surplus Criteria") (Attached). This is in violation of the ESA and contrary to a memo indicated that this consultation has occurred and should continue. See Memorandum from John Leshy, Solicitor to Eluid Martinez, Commissioner, of August 14, 2000. We hope that the August 14 memo is more indicative of the consultation that is occurring on the proposed action and that consultation with both FWS and NMFS continues.

38 In conclusion, section 3.16.6.1, POTENTIAL EFFECTS TO HABITAT IN MEXICO, is an argument against, rather than for, the implementation of surplus criteria. The second and fourth full paragraphs at 3.16-13 claim that "the potential magnitude of these excess flows is not affected by interim surplus criteria" because "all alternatives plus baseline indicate a decrease in frequency of flood control releases and flow amounts." However, two paragraphs later the analysis concludes "[s]pecial status species that utilize the riparian habitat along the Mexican reach of the Colorado River could be affected by the decrease in frequency of flood control releases and amounts of flow past Morelos Dam." Since declaration of a surplus is discretionary with the Secretary, he must ensure that the adverse impacts to endangered species from any type of surplus declaration are avoided. When read in conjunction with graphs showing the higher probabilities under the baseline and flood control alternative, this also suggests that the environmental harms of the other alternatives are significant and outweigh the benefits of any

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36: The action area extends to the Sea of Cortez. Reclamation is consulting with the U.S. Fish and Wildlife Service and the National Marine Fisheries Service for the delta area of Mexico and effects of the interim surplus criteria on species that occur in both the U. S. and Mexico or only in Mexico are discussed in Section 3.16, Transboundary Impacts.

37: Reclamation is informally consulting with NMFS, as described in Section 5.3.5 of the FEIS. Reclamation's assessment of effects on the vaquita and totoaba in Mexico is also included in Section 3.16.6 of the FEIS. The August 14 memo is included in Attachment S.

38: As indicated by response to Comment 11-36 above, the analysis of effects to special status species in Section 3.16 has been revised. Reclamation has concluded that implementation of interim surplus criteria may affect, but is unlikely to adversely, some species and is consulting with the U.S. Fish and Wildlife Service and NMFS, as required by Section 7 of the ESA.

cont'd | interim criteria.

Recommendations

39 | In sum, the DEIS underestimates the potential environmental impacts of interim surplus criteria. By narrowly defining the scope of the Secretary's discretion in managing the Lower Colorado, Reclamation has effectively diminished the area of potential impacts and the extent of impacts to water quality and sensitive species. Smaller geographic and ecological scope has, in turn, subjugated the significant environmental and social impact of the proposed criteria. As a result, there is no apparent need for environmental mitigation or for an environmental preferable alternative. The quality of the draft EIS suffers as these transgressions accrue; only a draft supplemental EIS can remedy these flaws.

Sincerely,

Kara Gillon
Associate Counsel

William J. Snape, III
Vice-President for Law and Litigation

Attachment

11

39: A comprehensive discussion of this issue is in the end of the next section. Reclamation does not believe that a Supplemental DEIS is required. We have expanded the area of potential effect and revised analyses of water quality and sensitive species impacts. A preferred alternative and environmental commitments are identified in the FEIS. The ROD will discuss the environmentally preferred alternative.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

July 13, 2000

Mr. David Hogan
Center for Biological Diversity
P.O. Box 628
Santa Ysabel, California 92070

Dear Mr. Hogan:

This letter is in response to the Center for Biological Diversity request under the Freedom of Information Act (FOIA), dated June 5, 2000, for documents relating to an informal or formal Endangered Species Act (ESA) consultation which may have occurred between the Bureau of Reclamation and the National Marine Fisheries Service (NMFS) with regard to the Department of the Interior's Colorado River Interim Surplus Criteria.

I understand that you spoke with Ms. Deanna Harwood, staff attorney in the Office of General Counsel, National Oceanic and Atmospheric Administration (NOAA) on July 7, 2000. Ms. Harwood and I appreciate your acceptance of our request for additional time in responding to your request. It is our understanding from that conversation that your interest is limited to whether the Bureau of Reclamation had initiated informal or formal ESA consultation with NMFS. As the Bureau of Reclamation has not contacted NMFS regarding informal or formal ESA consultation on the Department of Interior's Colorado River Interim Surplus Criteria, we have no documents responsive to your request.

Although this does not constitute a denial of your request because there were no records available or withheld, you may appeal this determination within 30 days of receipt of this letter. Appeals shall be addressed to the Office of the General Counsel, Room 5882, U.S. Department of Commerce, 14th Street and Constitution Avenue, N.W., Washington, D.C. 20230, and prominently mark your letter and the outside envelope, "FOIA Appeal." Your appeal should state the reasons why you believe this determination was in error. Attach a copy of your original request and a copy of this letter to your appeal.

Sincerely,

Rodney R. McInnis
Acting Regional Administrator

cc: Deanna Harwood

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PACIFIC INSTITUTE
FOR STUDIES IN DEVELOPMENT, ENVIRONMENT, AND SECURITY

September 8, 2000

Regional Director
Lower Colorado Region
Attention: Jayne Harkins (LC-4600)
Bureau of Reclamation
PO Box 61470
Boulder City, Nevada 89006-1470

PSO01008
4600

Via fax: (702) 293-8042

Re: Colorado River Interim Surplus Criteria DEIS

Dear Ms. Harkins:

The Pacific Institute for Studies in Development, Environment, and Security respectfully submits the following comments on the Colorado River Interim Surplus Criteria draft Environmental Impact Statement (DEIS). These comments will also be sent to you via regular and electronic mail. The Pacific Institute is an independent, non-partisan, non-profit center in Oakland, California, created in 1987 to conduct research and policy analysis in the areas of environment, sustainable development, and international security. The Institute has actively participated in the development of the Interim Surplus Criteria for more than a year, via formal scoping comments and through informal discussions and workshops. The Pacific Institute also submitted a set of "Environmental Interim Surplus Criteria" for consideration in the DEIS.

The Pacific Institute welcomes the effort to develop interim surplus criteria. We believe that facilitating the implementation of plans and projects to reduce California's use of Colorado River water to its legal apportionment is a worthy objective, and that interim criteria are a reasonable means of achieving this objective. The Institute does not believe, however, that meeting this objective should come at the cost of further harm to the environment.

In the attached comments, the Pacific Institute identifies several major flaws in the DEIS. These include: the failure to analyze the impacts of the 7 State Guidelines (likely to be the preferred alternative); the scope of the document; several of the modeling assumptions; the selection of the 75R trigger as a baseline instead of the flood control trigger; the absence of an adequate cumulative impacts assessment; and a general disregard for the Secretary's responsibility to "protect and enhance the environmental resources of the basin."

The general effect of these deficiencies is to understate the potential environmental impacts of interim surplus criteria. The Pacific Institute concludes that the DEIS is inadequate and should be formally revised and reissued for public comment as a Supplemental Draft Environmental Impact Statement. The deficiencies highlighted in the attached comments are of sufficient magnitude that they preclude a reasonable assessment of the potential environmental impacts associated with the adoption of interim surplus criteria.

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More broadly, the Pacific Institute believes that the potential benefits generated by interim surplus criteria do not warrant their environmental costs. These costs could be substantial. By the year 2015, the flood control alternative would generate a 17% greater probability of flows reaching the delta than would the six states' plan, itself likely to generate more flows than the 7 state plan. Because the frequency and magnitude of such flows are closely tied to the reproduction and health of the native riparian vegetation in the region, and indirectly to the myriad of threatened and endangered species that depend on this habitat, this projected reduction in flows is significant. The projected benefits of the interim surplus criteria are less clear. Interior is promoting the surplus criteria as necessary to reduce California's consumption of Colorado River water. Yet California's plan to reduce its use, even under the most optimistic of projections, would not meet the target conservation objective. And California continues to demand additional water, above and beyond that outlined within the 7 State Plan. At the August 16th AOP meeting, California requested a full surplus declaration for calendar year 2001, including 150,000 acre-feet for agricultural demands, justifying this request as a "transition" into the interim period. The absence of a real "4.4 Plan," combined with California's continued failure to reduce its use, suggest that California will not markedly reduce its use in the next fifteen years. In light of these substantial costs and tentative benefits, there is little incentive to condone increased threats to environmental values along the lower Colorado River.

The Secretary of the Interior has stated that surplus flows must be determined and allocated with *no net loss* of environmental benefits. According to the DEIS, the proxy for the 7 State Plan would likely generate a net loss of such benefits. Reclamation should identify a reasonable mechanism for mitigating the loss of such benefits, whether through the releases suggested by the Environmental Criteria or via another mechanism for protecting environmental benefits.

Overall, the Pacific Institute recommends that Reclamation issue a supplemental DEIS that:

1. defines and assesses the potential environmental impacts of the 7 State Guidelines
2. expands the scope to encompass the limitrophe, the delta in Mexico, and the Upper Gulf
3. revises the modeling assumptions as described in the attached comments
4. uses the flood control alternative as the baseline
5. adequately accounts for cumulative impacts
6. assesses the Environmental Interim Surplus Criteria

Thank you for the opportunity to participate in this important process. Please do not hesitate to contact me if you wish to discuss any of the points made in the attached comments.

Sincerely,

Michael Cohen
Research Associate

enclosure

Pacific Institute Comments

on the

Colorado River
Interim Surplus Criteria
Draft Environmental Impact Statement

A report of the

PACIFIC INSTITUTE FOR STUDIES IN DEVELOPMENT, ENVIRONMENT AND SECURITY

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OVERVIEW

California currently uses about 18% more Colorado River water than its normal entitlement. Until recently, this excess came from the unused apportionments of Arizona and Nevada, the other two states in the lower Colorado River basin. As Arizona and Nevada continue to increase their own use, the federal government and the other basin states have pressured California to reduce its use down to its legal entitlement. In response, California drafted a plan to reduce its use, but claims that over the next 15 years it will require a reliable supply of additional "surplus" water from the Colorado River to implement this plan. The Department of the Interior and the other basin states have decided that the benefit of implementing California's plan outweighs the risks of increased shortage and other costs associated with drawing down the elevation of Lake Powell and Lake Mead, and so agreed to create temporary rules, known as interim surplus criteria, to allow California to use additional water. Interior claims that this long-term benefit outweighs the potential short-term costs to the environment, such as reduced flows to the Colorado River delta.

The Bureau of Reclamation published a Notice of Intent to develop surplus criteria for Colorado River management on May 18, 1999 (64 Fed Reg 27008). On July 7, 2000, the U.S. Bureau of Reclamation issued a Draft Environmental Impact Statement (DEIS) to analyze the potential environmental impacts of adopting specific interim criteria (65 Fed Reg 42028). On August 8, 2000, Reclamation published a new set of rules, known as the 7 States' proposed interim surplus guidelines (65 Fed Reg 48531).

The adoption of surplus criteria will impact several related Colorado River issues, including the frequency and magnitude of "space-building" and reservoir spill (flood) flows, the availability of water for the delta region, habitat availability and quality for federally listed species, off-stream storage, the lower Colorado River MSCP, the availability of surplus flows for Mexico, recreational uses along Lake Powell and Lake Mead, water quality issues, power generation, the probability of shortage conditions on the river, and others. The Pacific Institute's comments focus on the scope of the DEIS, potential impacts to habitat along the Colorado River downstream of Lake Mohave, modeling assumptions, and several procedural issues.

The Pacific Institute identifies several significant deficiencies in the DEIS:

1 1. **The DEIS does not include the 7 State Plan** The DEIS fails to analyze the potential impacts of the 7 State Plan, which is likely to be the preferred alternative. Comments by various basin state representatives at the August 16th Annual Operating Plan (AOP) meeting in Las Vegas indicated that the basin states already assume that the 7 State Plan will be adopted. Yet the DEIS uses a different plan as a proxy for the 7 State Plan, justifying its decision because a "preliminary review" of this plan suggests that it lies "within the range of alternatives and impacts analyzed in the DEIS." A preliminary review by the Pacific Institute indicates that the new, unanalyzed plan would increase Colorado River depletions, exacerbating the potential impacts relative to the proxy plan and to the baseline. The Pacific Institute recommends that these impacts be modeled and analyzed.

2 2. **Scope** The scope of the DEIS is inadequate. The DEIS does not analyze the full range of potential impacts within the U.S., arbitrarily excluding the limitrophe division of the Colorado River. Additionally, the discussion of transboundary environmental impacts are cursory and

1: Reclamation agrees and has modeled and analyzed the Basin State Alternative for this FEIS. It should be noted that this alternative has been selected as the preferred alternative.

2: The area of potential effect has been expanded to include consideration of the Colorado River 100-year floodplain to the SIB. The Transboundary analysis has been modified in the FEIS and Reclamation believes this section appropriately assesses potential effects in Mexico.

inadequate. The DEIS fails to acknowledge the potential impacts to the Upper Gulf of California, the listed species found there, and the socioeconomic values dependent upon flows to the Gulf. The Pacific Institute recommends that the scope be extended to encompass the estuary at the mouth of the Upper Gulf and the full floodplain in the Colorado River delta.

3. **Modeling Assumptions** The model is based on a series of assumptions that distort the results used to predict potential environmental impacts. These results understate the magnitude of potential impacts to the environmental resources within the affected area. The Pacific Institute recommends that the assumptions be refined, as described in the following.

4. **Baseline** The selection of a liberal baseline, based on the 1997 surplus declaration, rather than the more conservative flood control baseline used for the 1998, 1999, and 2000 surplus declarations, is inappropriate. The use of this arbitrary, liberal baseline diminishes the projected impacts of interim surplus criteria, effectively understating the magnitude the action. The Pacific Institute recommends that the flood control guidelines be used as the baseline.

5. **Cumulative Impacts** The DEIS inadequately accounts for cumulative impacts, and then discounts these impacts, in violation of NEPA. The Pacific Institute recommends that the DEIS list and describe the full range of federal and non-federal actions that impact the affected area, and account for these cumulative impacts.

6. **Environmental Responsibilities** Long term Colorado River system management objectives require the Secretary to "protect and enhance the environmental resources of the basin." The adoption of the interim surplus criteria, particularly the 7 State Plan, would not satisfy this objective. An alternative submitted to Interior by the Pacific Institute and nine environmental organizations would meet both the stated objectives for interim surplus criteria and the Secretary's broader environmental trust responsibilities. The Pacific Institute recommends that Reclamation analyze the potential impacts of this alternative in the DEIS.

The general effect of the above deficiencies is to understate the potential environmental impacts of interim surplus criteria. The Pacific Institute concludes that the DEIS is inadequate and should be formally revised and reissued for public comment as a Supplemental Draft Environmental Impact Statement. The deficiencies highlighted in these comments are of sufficient magnitude that they preclude a reasonable assessment of the potential environmental impacts associated with the adoption of interim surplus criteria.

More broadly, the Pacific Institute believes that the purported benefits generated by interim surplus criteria do not warrant their environmental costs. These costs could be substantial. By the year 2015, the flood control alternative would generate a 17% greater probability of flows reaching the delta than would the six states' plan, itself likely to generate more flows than the 7 state plan. Because the frequency and magnitude of such flows are closely tied to the reproduction and health of the native riparian vegetation in the region, and indirectly to the myriad of threatened and endangered species that depend on this habitat, this projected reduction in flows is significant. The projected benefits of the interim surplus criteria are less clear. Interior is promoting the surplus criteria as necessary to reduce California's consumption of Colorado River water. Yet California's plan to reduce its use, even under the most optimistic of projections, would not meet the target conservation objective. And California continues to demand additional water, above and beyond that outlined within the 7 State Plan. At the August

3: Section 3.16.5.3 has been added to the FEIS to provide information on the general potential impacts that the implementation of interim surplus criteria may have on the frequency of excess flows to Mexico as well as the potential resultant impacts to groundwater recharge and salinity South of the SIB. Reclamation does not concur with the suggestions presented under the headings - "Baseline", "Cumulative Impacts" and "Environmental Responsibilities." Reclamation's rationale for using the analyses criteria and type of analysis presented in the DEIS and FEIS are explained and detailed in these documents. See responses below.

4: See response to Comment 57-11.

5: Section 4.2 has been modified and Reclamation believes that it has appropriately addressed potential cumulative effects of the proposed action.

6: An EIS need not consider an infinite range of alternatives, only reasonable and feasible ones and those reasonably related to the purposes of the project that afford a reasoned choice by the decision maker. The rule of reason shall be utilized in development of a range of alternatives. NEPA does not require a separate analysis of alternatives which are not significantly distinguishable from alternatives actually considered, or which have substantially similar consequences. For these reasons Reclamation considered the Pacific Institute alternative but eliminated it from further analysis because part of it did not meet the purpose and need of the proposed action and the remainder of the alternative mirrored the Six States Alternative which was analyzed in depth.

7: Reclamation disagrees with the commentor's opinion that the DEIS is inadequate and should be revised and a supplemental DEIS reissued. Reclamation has followed regulations implementing NEPA and it is accepted practice to update, refine, clarify and make factual corrections to the content and analyses in the EIS resulting from improved data control, public comments, coordination with interested parties and incorporate these changes into the document and circulate it as a FEIS.

8: Comment noted. Section 3.16.6 of the FEIS has been expanded to provide more information on the potential effects of changes in excess flows on habitat and threatened or endangered species in Mexico for each of the alternatives.

9: Comment noted. Please refer to the introduction to Volume III regarding the proposed action and its relationship to California's program to reduce its dependence on surplus water.

cont'd

16th AOP meeting, California requested a full surplus declaration for calendar year 2001, including 150,000 acre-feet for agricultural demands, justifying this request as a "transition" into the interim period. The absence of a real "4.4 Plan," combined with California's continued failure to reduce its use, suggest that California will not markedly reduce its use in the next fifteen years. In light of these substantial costs and tentative benefits, there is little incentive to condone increased threats to environmental values along the lower Colorado River.

BACKGROUND

On July 7, 2000, the Bureau of Reclamation released the draft environmental impact statement (DEIS) for the adoption of interim surplus criteria for the Colorado River. These surplus criteria are meant to establish specific guidelines to assist the Secretary of the Interior's determination whether to declare a surplus condition for the river, and to facilitate California's implementation of measures to reduce the state's use of Colorado River water from its current use of about 5.2 million acre-feet[1] (MAF)/year to its legal entitlement of 4.4 MAF.

Under a complex institutional arrangement known as the Law of the River, Arizona, California and Nevada are entitled to use 7.5 MAF of water from the Colorado River each year. Of this amount, California is apportioned 4.4 MAF. Most (3.85 MAF) of the rights to California's water belong to agricultural users, leaving only 0.55 MAF for the 17 million urban users in the greater L.A. and San Diego metropolitan area. Since 1961, California has used an annual average of almost 5.0 MAF, supplementing its entitlement with the unused apportionment of Arizona and Nevada. In recent years, however, Arizona and Nevada have consumed most of their respective apportionments, decreasing the availability of unused water for California.

In the past several years, California has consumed more than 5.2 MAF/year, largely because the Metropolitan Water District of Southern California (MWD) has conveyed nearly 1.29 MAF/year through its Colorado River Aqueduct. The Secretary of the Interior and the other six basin states have pressured California to reduce its demands on Colorado River water down to the state's legal entitlement of 4.4 MAF. In response to these pressures, the state has drafted the California Colorado River Water Use Plan (available at http://crb.water.ca.gov/reports.htm), a loose framework of conservation efforts, groundwater storage, offstream banking, rural-to-urban water transfers, and other programs and projects to meet the agricultural and urban water needs of the state while reducing consumption. Originally, this water use plan was called the "4.4 Plan," but because it only projects 0.49 MAF of savings in the next 15 years and 0.54 MAF of savings in the next 25 years, it was given its longer but less ambitious title.

Partly in response to California's demand for additional water as it drafted the California Plan, and partly because of very high reservoir levels and unusually wet hydrologic conditions, the Secretary declared a surplus for the river each year from 1996 – 2000. Authority for the Secretary to declare a surplus stems from the *Arizona v California* Supreme Court Decree (1964). A surplus condition allows the lower basin states to consume water beyond their normal apportionment of 7.5 MAF. California is entitled to 50% of this surplus, Arizona 46%, and Nevada 4%; a state may also use the another state's unused apportionment. The Secretary

[1] An acre-foot is 325,851 gallons of water, approximately the amount two families of four use in a year. The estimated annual flow of the Colorado River since 1906 is about 15 MAF.

declared these surpluses through the Annual Operating Plan (AOP) process, with the assistance of representatives of the seven Colorado River basin states (Arizona, California, and Nevada in the Lower Basin and Colorado, New Mexico, Utah, and Wyoming in the Upper Basin), tribal representatives, water users, members of the academic and scientific communities, environmental organizations, contractors for hydroelectric power, and the general public.

PARTICIPATION OF THE PACIFIC INSTITUTE

On June 28, 1999, the Pacific Institute submitted comments on the scope of the National Environmental Protection Act (NEPA) process and the DEIS, urging the inclusion of an assessment of transboundary impacts, among other concerns. In November 1999, Pacific Institute staff met with a senior Reclamation official to discuss our concerns regarding the potential environmental impacts of interim surplus criteria. As a result of this conversation, the Institute coordinated a meeting in Las Vegas on December 16th between representatives of several environmental groups and senior Reclamation staff. Among the concerns voiced at the meeting was the potential for surplus criteria to lower the elevation of Lake Mead, decreasing the frequency and magnitude of the space-building and flood release flows that sustain native riparian habitat along the lower Colorado River, especially in the river's delta in Mexico. Upon Reclamation's request, the Pacific Institute offered to draft a set of interim surplus criteria that reflected the interests and concerns of the environmental community. 10

In response to the concerns voiced by environmental groups at the meeting, the Secretary of the Interior added language to his keynote address on December 17, 1999 to the Colorado River Water Users Association conference. The Secretary stated that surpluses must be determined and allocated with *no net loss* of environmental benefits (emphasis added), setting an important environmental baseline for interim surplus criteria. The Pacific Institute incorporated the Secretary's environmental baseline into the "Environmental Interim Surplus Criteria for the Colorado River" (DEIS Attachment F) that was drafted jointly with American Rivers, Defenders of Wildlife, Environmental Defense, Friends of Arizona Rivers, Glen Canyon Institute, Grand Canyon Trust, Land and Water Fund of the Rockies, Sierra Club Colorado River Task Force, and the Sonoran Institute, as well as several members of the academic community. These criteria were designed to satisfy the dual objectives of improving the predictability of surplus conditions for water users and facilitating California's reduction in the use of Colorado River water, without causing further harm to the environment. In effect, they integrated mitigation measures into the criteria themselves.

INTERIOR AND THE DELTA

The Department of the Interior has publicly recognized the importance of the Colorado River delta. The Secretary's keynote address reflected this recognition. On May 5, at the Law of the Colorado River conference in Tucson, the Deputy Secretary said that the delta is an issue whose time has come. Less than two weeks later, Interior and its counterpart agency in Mexico, SEMARNAP, signed the Joint Declaration to Enhance Cooperation in the Colorado River Delta. In the Joint Declaration, Interior pledges to "strengthen cooperative action and mechanisms, to improve and conserve the natural and cultural resources of the Colorado River Delta, including the river and associate wetland habitats," and "develop strategies of environmental sustainability," among other actions.

10: Comment noted.

In a opinion piece that appeared in the *Los Angeles Times* on August 25th, the Deputy Secretary wrote of the CALFED process that

> It's also about restoring the watersheds that have borne the effects of water manipulations that were undertaken in a different era, an era that paid little regard to the impact that damming, depleting or diverting rivers and streams would have on downstream water quality, fish and wildlife resources and other environmental values.

These words could have been written about the Colorado River. Yet, while the CALFED plan recognizes and allocates water for environmental needs, the interim surplus criteria do not.

The Colorado River Delta

Historically, prior to the construction of dams, diversions, and other reclamation projects, millions of acre-feet of Colorado River water flowed every year through the Colorado River delta and into the Upper Gulf of California, supporting tremendous levels of biological productivity and diversity. The delta has been degraded as human demands have dramatically reduced the amount of water reaching it. Except for years with unusually high run-off, virtually the entire flow of the Colorado is now captured and used before reaching the river's mouth. However, even without the historic flows, the remnants of the delta and Upper Gulf still comprise the largest and most critical desert wetland in North America, as well as one of the world's most diverse and productive marine ecosystems. In recent years, flood release flows from upstream dams have prompted the re-emergence of ecologically valuable riparian habitat and have been strongly correlated with a rise in the shrimp catch in the Upper Gulf, an indication of the renewed viability of an important estuary. In 1993, Mexico affirmed the importance of the region and designated it a Biosphere Reserve, which has since received international recognition.

11 At its upper reaches, the delta is dominated by native vegetation such as cottonwoods and willows, offering more than twice the amount of native riparian habitat found in the entire reach of the Colorado River in the United States from Hoover Dam to the Mexican border. The native riparian vegetation of the lower Colorado River and the delta evolved in response to occasional flood events; such flows must be replicated to ensure the continued viability of these species. The middle extent of the delta contains extensive backwaters filled by occasional floods, providing valuable wetland habitat for migratory birds as well as a myriad of local species. The delta supports several species listed by the U.S. Fish & Wildlife Service, including southwestern willow flycatchers (*Empidonax traillii extimus*), Yuma clapper rails (*Rallus longirostris yumanensis*), totoaba (*Totoaba macdonaldi*) and desert pupfish (*Cyprinodon macularius*), while the river's estuary is home to the vaquita porpoise (*Phocoena sinus*), the world's most endangered marine mammal.

11: See response to Comment 22-8.

12 Currently, the Colorado River delta is largely dependent on flood control releases from Hoover Dam. These waters are released primarily from October through February, to provide flood control storage space. It is important to distinguish between surplus flows, which are released upon declaration of a "surplus condition" in response to the diversion orders of downstream users, and flood flows. Army Corps of Engineers guidelines dictate the release of water from Hoover Dam from August through December to ensure sufficient flood control storage capacity. These releases are known as "space building releases," while releases made after January 1 to ensure sufficient flood control storage capacity are known as "flood control releases." Both are also referred to as "spills." These flows may be diverted by downstream users. It is important to note that the current timing of flood control releases precedes the natural flood regime and

12: See Sections 1.3.6 and 3.3.1.2 for explanations of flood control operations for Lake Mead (Hoover Dam).

cont'd therefore offers less benefit for the successful recruitment of native riparian vegetation such as cottonwoods and willows than if these releases more closely mimicked the river's natural flood regime.

THE DEIS

POTENTIAL AFFECTED AREA

13 The DEIS notes the requirement to assess transboundary impacts, pursuant to Executive Order 12114 and the Council on Environmental Quality Guidelines on NEPA Analyses for Transboundary Impacts, as well as the regulations implementing Endangered Species Act consultations with the Fish and Wildlife Service and the National Marine Fisheries Service. Yet the DEIS states that the potential area of impact extends downstream only as far as the Northerly International Boundary (NIB) (p. 3.2-1). This is inconsistent with the Lower Colorado River Multi-Species Conservation Program (MSCP) planning area, which extends as far south as the Southerly International Boundary (SIB), 23 miles further south. It is also inconsistent with the controlling legal authority noted above. Ironically, Map 3.2-1 of the DEIS identifies the "Area of Potential Effect" as extending below the NIB, below the SIB, as far downstream as the river's mouth at the Gulf of California.

The geographic scope of the DEIS should be broadened as well as lengthened. Below Morelos Dam, the river's floodplain widens toward the south. The entire region within the levees in Mexico should be included as the potentially impacted area, as releases of sufficient magnitude to cause overbank flooding could potentially inundate much or all of this area; the 100-year floodplain is much broader in the delta than it is upstream. The DEIS should list the size of the affected area for each of the reaches of the river examined and include specific vegetation coverages for each area. Much of this information has been compiled by the MSCP for the U.S. reach of the river, and has also been documented for the Mexican region.[2]

14 Historically, the Colorado River emptied into the upper Gulf of California, creating one of the world's most productive estuaries. As a result of flood control releases in the mid-1980s and again starting in 1997, water again flows into the Upper Gulf. These flows generate measurable ecological and economic benefits. Such benefits would be negatively impacted by the projected reductions in flows due to the implementation of surplus criteria. These impacts should be analyzed in the supplemental DEIS.

15 The letter (in Attachment Q) from Arturo Herrera, Commissioner of the Mexican counterpart to the US State Department's IBWC, highlights several other potential impacts resulting from the implementation of surplus criteria, including reduced recharge of the Mexicali aquifer. Annual overdraft of the aquifer is partly offset at present by infiltration from periodic Colorado River flood flows. Absent this periodic recharge, the level of the water table would drop more rapidly, increasing the hydrologic gradient under the border and drawing groundwater from the U.S. Such indirect impacts extend the area of potential effect and should be analyzed as part of the

[2] See Daniel F. Luecke et al. 1999. *A Delta Once More: Restoring Riparian and Wetland Habitat in the Colorado River Delta.* Washington, DC: Environmental Defense Fund Publications, pp. 20-29.

13: Potential effects on special-status species within the expanded area of potential effect are addressed Section 3.8 of the FEIS. Map 3.2-1 has been revised to more accurately represent the area of potential effect considered within the U.S. as well as areas within Mexico that are addressed in Section 3.16, Transboundary Impacts.

14: See response to Comment 12-8.

15: Reclamation believes that the analysis presented in this section. Section 3.16, Transboundary Impacts, has been modified for the FEIS and adequately and appropriately identifies potential effects of interim surplus criteria in Mexico. Note that Reclamation is committed to working with Mexico to address specific concerns.

NEPA process. Commissioner Herrera also underscores the potential environmental impacts on the delta resulting from surplus criteria.[3]

cont'd

Reclamation dismisses Commissioner Herrera's concerns by stating that "it is not clear that these concerns are a result of interim surplus criteria" (3.16-3). Dismissing these concerns violates the spirit of consultation with Mexico. And, as noted in the DEIS, the selected alternative will alter the frequency and magnitude of flood flows reaching Mexico, indicating that such concerns are in fact real. The supplemental DEIS should extend the area of potential impacts to encompass the full range of potential impacts to the delta region and the Upper Gulf of California, as well as regions indirectly impacted due to reduced recharge of the Mexicali aquifer and the likely increase in transboundary groundwater flows due to increased pumping in Mexico.

DEIS AND HABITAT

16

The DEIS fails to provide an adequate description of the habitat and species composition present along the lower Colorado River in the U.S. and in Mexico below Morelos Dam. The DEIS should provide a map displaying the various vegetation coverages along the river downstream of Mohave Dam, to reflect riparian and wetland habitat present in the various wildlife refuges along the river and within the delta in Mexico. The minimum stage necessary to freshen backwaters along the mainstem of the river and to inundate the floodplain in Mexico should be indicated on the map, along with a projected frequency interval at which these conditions would be satisfied under the different alternatives under consideration. The DEIS offers only generalized information and aggregated acreage estimates, despite the fact that more refined data exist.[4]

16: Potential effects on special-status species within the river corridor between Hoover Dam and the SIB are addressed in the BA for ISC/SIAs and have been summarized in Section 3.8 of the FEIS.

17

The DEIS does not address the significant difference in the quantity and frequency of water reaching the delta that the model projects for the flood control alternative and the Six States' Plan. Table 3.16-1 indicates that, in the year 2015, the probability of flood flows reaching the delta is more than 16 percent greater under the flood control alternative than under the Six States' Plan. The reduced frequency of flows to the affected area under the Six States Plan would cause further harm to habitat in the area, subsequently impacting the species that depend on this habitat. The DEIS should analyze these impacts.

17: The EIS discusses these potential effects as necessary to identify the differences between each of the alternatives compared to baseline conditions. Table 3.16-1 has been updated in the FEIS with revised data.

18

Section 3.16.6.1 states that reductions in flows below the NIB were instituted through the 1944 Treaty. This statement is incorrect and is likely not what was intended. The Treaty establishes minimum, not maximum, flows. In fact, the Treaty increased the quantity of flows that the U.S. was prepared to deliver to Mexico.[5] The responsibility for the dramatic reductions in the flow of the Colorado River to its delta, from historic levels of roughly 14 MAF/year to zero in most years, lies with U.S. interests.

18: Comment noted. Section 3.16.6.1 has been revised to state that "...reductions have been instituted while meeting the requirements of an international treaty and the diversion and use of such treaty water is solely at Mexico's discretion." At least since execution of the Treaty, it is incorrect to state that responsibility for reductions of flows to Colorado River delta lies with U.S. interests alone.

CUMULATIVE IMPACTS

19

NEPA requires a cumulative impacts analysis: the cumulative impacts of surplus criteria atop increased upper basin consumption and continued excessive use by California, among other

19: See response to Comment 12-5.

[3] Note that "álamos" in the Commissioner's letter is correctly translated as "cottonwoods."
[4] See Daniel F. Luecke et al. 1999. *A Delta Once More*, pp. 20-29.
[5] Norris Hundley, jr. 1966. *Dividing the Waters: A Century of Controversy between the United States and Mexico.* Los Angeles: University of California Press.

cont'd

actions, can not be dismissed. The DEIS provides less than a page on cumulative impacts (4.2). The cumulative impacts analysis should list and describe all of the federal and non-federal actions that could impact the affected area, including reasonably foreseeable future actions. These listed impacts should then be analyzed in light of the additional incremental impacts posed by the surplus criteria. The DEIS dismisses the potential incremental impacts due to the selection of a preferred set of surplus criteria, stating that "the potential effects of interim surplus criteria are likely to be negligible ..." relative to other actions. This is not an adequate cumulative impacts analysis.

PACIFIC INSTITUTE PROPOSAL

20

The "Environmental Interim Surplus Criteria," submitted by ten NGOs and subsequently endorsed by the Center for Biological Diversity and The Wilderness Society, should be analyzed in a supplemental DEIS. These criteria would satisfy the objective of facilitating California's reduction in its use of Colorado River water, without forcing the environment to bear the costs of such actions. Although similar in many respects to the Six States Plan, the Environmental Criteria differ sufficiently to merit appraisal in a supplemental DEIS.

21

In the following, and per previous conversations and correspondence with Reclamation staff, we offer suggestions as to how best to model the Environmental Interim Surplus Criteria, and suggest several specific projections that should be included in the supplemental DEIS.

Clarifications:

- Reclamation should model the monthly release schedule under "2) baseline delta flows" so that these delta flows are relatively constant throughout the year
- Reclamation should model the monthly release schedule under "5) delta flood flows" so that 100% of such releases are made from May through July, peaking in June at a ratio of 35%: 45%: 20% (flows in other months would be released by the baseline flow trigger, above)
- Due to difficulties in modeling a Secretarial determination of "No Net Loss," for the purposes of modeling Reclamation should assume that such a determination is made

Differences between the Environmental Criteria ("NGO") and the 7 States' Plan ("States"):

- **Normal elevation trigger**: ≤ 1120.4 for NGO, ≤ 1125 for States
- **Baseline delta flows** 0.032 MAF above elevation 1120.4 for NGO; none for States
- **Partial M&I/Domestic surplus elevation** triggered between 1125 & 1145 for both; for purposes of these modeling runs, the quantities of water released under the two plans are equivalent
- **Full M&I/Domestic Surplus** triggered above elevation 1145. NGO plan equivalent to States' plan with the following exceptions: Total deliveries through the Colorado River Aqueduct would be limited to 1.212 million acre-feet under the NGO plan instead of 1.250 under the States' plan
- **Delta Flood Flows** triggered by Reclamation 70 percent flood control avoidance elevation (70A1) under the NGO plan; no such release under the States'

20: See responses to Comment 11-8 and 13-4.

21: Reclamation has noted the clarifications of the Pacific Institute's proposed interim surplus criteria, and the recital of differences between its proposal and the Seven States Proposal. The revised provisions of Pacific Institute's plan have been included in Attachment F of the FEIS entitled Surplus Criteria Proposal by Pacific Institute.

cont'd

- **Full Surplus/Quantified Surplus** 70R trigger for both plans, although for the purposes of determining the trigger elevation the NGO plan considers the above delta baseline and flood flows as "uses" and the States plan does not (so the trigger elevation will be higher under the NGO plan). Unlike the States' plan, under the NGO plan, no water would be made available to California or Nevada for off-stream storage, including groundwater banking, under this tier, and no surplus water would be made available to Arizona for such purposes under this tier.
- **Flood Control Surplus** equivalent for the two plans
- **Shortage Criteria** the NGO plan does not establish shortage criteria

Requested information:

22

- Probabilities of shortage under the two plans, using the States' definition of shortage
- Probabilities of delta flood flow releases over time
- Probabilities and projected quantities of flows below all major diversions, under the two plans
- Probabilities and projected quantities of flow released under Partial M&I/Domestic surplus, under the two plans, until year 2016

22: Comment noted.

23 The DEIS states that "the delivery of water to or through Mexico would require modification of the Treaty" (2-3). This is incorrect. The Treaty requires the U.S. to deliver a minimum quantity of flows to Mexico; it does not limit the amount of water the U.S. may deliver. In 1998, the U.S. delivered more than 3.0 MAF over Treaty obligations; in 1984, the U.S. delivered more than 13.8 MAF over Treaty obligations. The development and implementation of interim surplus criteria are subject not only to the demands of California and the basin states, but to the Law of the River and the laws of the United States, including NEPA and the ESA. Within this broader context, the proposed environmental surplus criteria are appropriate. Reclamation and the basin states will likely come to find that the limited dedication of resources for environmental purposes outlined in the environmental criteria are far more benign than the mitigation that will be required should they choose to ignore environmental impacts in the U.S. and Mexico.

23: See response to Comment 18.

MODELING

The adoption of interim surplus criteria would create a new set of operational instructions for managing the river; it would not require the construction of new infrastructure. The direct environmental impacts of such criteria would be limited to the effects of changes in river operation. To project the potential impacts of such changes, Reclamation created a basin-wide model that uses the historical record (since 1906) of Colorado River flows to predict future inflows to the system and releases from Lake Mead. As noted by Reclamation, the results of the model are most sensitive to projections of future inflows, the least reliable data. The accuracy of the model also decreases the further it projects into the future. Reclamation contends that the main value of the model is that it allows for an analysis of the relative impacts between the proposed alternatives, rather than an analysis of the absolute impacts of any one alternative.

These comments address three general aspects of the model: the assumptions common to all alternatives, the assumptions for specific alternatives, and the presentation of the model results. There are five assumptions common to all alternatives that should be refined:

24

1. **Inflows** Even over the brief historical record, the yearly natural flow of the Colorado River has varied dramatically, ranging from an estimated low of 5.0 MAF in 1977 to an estimated high of 23.6 MAF seven years later. It is not clear that the Index Sequential Method (ISM) used in the model captures the full range of future variability, particularly for the brief 15 year duration of the surplus criteria. We suggest using a partially random model, one that inputs all of the possible permutations of the historical record, to increase the range of possible flows during the interim period.

25

2. **Upper Basin Consumption** The model uses 1996 projections of upper basin consumptive use. These projections reflect a maximum probable rate of increase. As noted by Reclamation at its Hydrological Modeling meeting (8/15/2000), upper basin diversions (and consumptive use) are subject to flow variability because many of them are run of the river diversions, rather than diversions from stable reservoirs, decreasing the likelihood that diversions will match projected demand. The model should incorporate most probable and minimum probable rates of increase for upper basin consumptive use, and Reclamation should assess the sensitivity of the results to differences in such projections. Such rates of increase affect the quantity of inflows to Lake Mead and therefore projections of Mead elevation, important for projecting flood releases flows, shoreline impacts, and probabilities of shortage conditions.

26

3. **Initial Mead Elevation** The model uses as a starting condition the elevation of Lake Mead on January 1, 2000. To improve the accuracy of the model, we recommend that this starting elevation be changed to reflect the projected Mead elevation on December 31, 2000, currently expected to be about thirteen feet lower than the previous year's elevation due to lower than average inflows. This significant drop in elevation will decrease the probability of water reaching the delta region.

27

4. **Deliveries at NIB** The DEIS notes that the U.S. delivers approximately 0.14 MAF/year to Mexico at a location one mile east of the river at the SIB. Yet the model assumes that this delivery occurs 23 miles north, within the river channel. The model should be refined to account for the different delivery points, the fact that the SIB delivery is not made within the river channel, and the fact that the SIB deliveries are return flows from Arizona and not mainstem water. This modeling assumption distorts projected flows through the limitrophe and further downstream, and also distorts projections of maximum probable diversion by Mexico through its Alamo Canal at Morelos Dam.

28

5. **Yuma Desalting Plant** The model assumes that the Yuma Desalting Plant will be operational in the year 2015, yet fails to account for the impacts such an action would have on the Cienega de Santa Clara. The Cienega currently relies on agricultural drainage flows that bypass the desalting plant; operation of the plant would not only markedly decrease the quantity of flows to the Cienega but would also markedly decrease the quality of the water sent to the wetlands, destroying habitat of special status species such as the Yuma Clapper Rail and Desert Pupfish. The DEIS should explain why it assumes operation of the Plant in 2015 and should not ignore the environmental impacts of such an action. Alternatively, and more appropriately, the DEIS should not assume operation of the plant until the appropriate environmental documentation has been completed.

24: See the response to Comment No. 31-8 for a discussion of the Index Sequential Method. Other methods are possible, and Reclamation is evaluating them for future use.

25: See response to Comment No. 14-10 for information regarding depletion schedules used in the FEIS.

26: The projected Lake Mead elevation on January 1, 2002 was used for the initial condition in FEIS modeling. See response to Comment No. 13-22 for further discussion.

27: The following excerpt will be added to Section 3.4.3.6 to address the Mexico water supply delivery requirements under Minute 242: Minute 242 provides, in part, that United States will deliver to Mexico approximately 1,360,000 acre-feet (1,677,545,000 cubic meters) annually upstream of Morelos Dam and approximately 140,000 acre-feet (172,689,000 cubic meters) annually on the land boundary at San Luis and in the limitrophe section of the Colorado River downstream from Morelos Dam. It should be noted that while a portion of Mexico's 1.5 maf annual apportionment is actually delivered below Morelos Dam, the entire delivery to Mexico was modeled at Morelos Dam. This basic assumption, while different than actual practice, served to simplify and facilitate the analysis of water deliveries to Mexico under the baseline conditions and surplus alternatives.

28: See response to Comment No. 11-14 for a discussion of the FEIS assumption that the Yuma Desalination Plant will begin operations after 2022.

29 6. **Climate Change** For the purpose of increasing the accuracy of longer-term projections, the model should incorporate the range of potential impacts of climate change on the Colorado River basin, which might reduce inflows by as much as 20 percent.[6]

The assumptions behind the various alternatives differ in some respects. These varying assumptions inform the projections of the alternatives' relative impacts. The DEIS bases much of its analysis on the relative difference in flows under the different alternatives, making the assumptions behind these alternatives especially important. Reclamation should clarify the following points:

1. **Baseline** NEPA requires consideration of a "no action" alternative, to serve as a baseline for comparison. To date, no formal surplus criteria exist to act as such a baseline. The Secretary, acting without formal guidelines or criteria, has declared a surplus condition for the river each year starting in 1996. Hydrologic conditions have varied considerably over the five years in which surplus has been declared, to the extent that in 1996 insufficient volume was deemed available to provide surplus for Mexico, while in 1998 more than 3.0 MAF were released above downstream demands. Reclamation determined that a "75R" strategy offered the best approximation of conditions on the river at the time of the Secretary's declaration in 1997. The DEIS fails to explain why Reclamation selected 1997 as the baseline year. Selecting 1996 as the baseline would have generated a much more liberal definition of surplus, while
30 selecting the years 1998-2000 would have matched a flood-control definition of surplus (2.2.1.4). Reclamation should explain why it used a single year as the model for the baseline condition, rather than the three years that followed. Although not markedly different than the 75R baseline, a flood-control baseline would generate a greater frequency and magnitude of flows to the delta than the 75R baseline and a 16.7% greater chance of flood flows than the Six States alternative in 2015.

2. **California Consumptive Use** As shown in DEIS Attachment G, the 75R baseline and the flood control alternatives assume that California will only consume roughly 4.4 MAF/year. In comparison, the six states' plan assumes California will consume more than 5.2 MAF at full surplus, and 5.0 MAF decreasing to 4.7 MAF at the Level 2 surplus tier. Yet the main impetus for the creation of interim surplus criteria is to reduce California's use to 4.4 MAF/year. If California were only consuming 4.4 MAF/year, as assumed by the baseline, there would be no need for interim surplus criteria. It is inconceivable that California will reduce its use by more than 0.8 MAF in one year. The baseline/"no action" alternative therefore does not accurately reflect actual conditions.

3. **Six vs. 7 State Plan** The 7 State Plan is the consensus approach submitted by the Colorado River Basin states and therefore will very likely be the preferred alternative. Reclamation
31 claims that the 7 State Plan (65 Fed Reg 48531) is substantially similar to the Six State Plan that is analyzed in the DEIS, and that it does not require its own analysis. The differences between the two plans therefore demand scrutiny, to assess whether the DEIS analysis of the Six State Plan is a reasonable proxy for what is likely to be the preferred alternative. The

[6] See L. Nash and P. Gleick, 1991, The sensitivity of streamflow in the Colorado basin to climatic changes, *Journal of Hydrology* 125: 221-241 and L. Nash and P. Gleick, 1993, The Colorado River Basin and Climatic Change: The Sensitivity of Streamflow and Water Supply to Variations in Temperature and Precipitation, Washington, DC: US EPA, EPA230-R-93-009, 121 pp.

29: There is not yet a consensus in the scientific community regarding whether long-term climate change will result in overall wetting or drying of the Colorodo River Basin. The use of the Index Sequential Method captures a wide range of flow conditions that enables the evaluation of future water supply conditions under different hydrologic scenarios. See the response to Comment No. 31-8 for a discussion of the Index Sequential Method.

30: Reclamation did not use only a single year as the basis for the baseline in the DEIS. See the response to Comment 57-11 for an explanation of the derivation of the baseline.

31: Reclamation's statement that the Seven States Proposal was substantially similar to the Six States Alternative was a conclusion about the need for a preliminary analysis to accompany the DEIS. The preferred alternative has been derived from the Seven States draft proposal, and has been analyzed in this FEIS at the same degree of detail as the other alternatives.

following simplified table depicts specific differences between the two plans in their prescribed surplus deliveries to California:

cont'd

Surplus Tier	Six States	7 States
Partial M&I for MWD	0.304 MAF[7], less new transfers	0.262 MAF
Full M&I for MWD	0.554 MAF[7], less new transfers	0.700 MAF

There are also programmatic differences between the two plans. The 7 State Plan is likely to increase consumptive use by California, further decreasing the elevation of Lake Mead and further decreasing the frequency and magnitude of excess flows reaching the delta and Upper Gulf.

The data generated by the model should be presented in a clear manner that conveys pertinent information to the reader. Model results should be refined as follows:

32

1. **Annual Scale** Much of the specific data in the DEIS is presented only for the years 2005, 2015, 2025, and 2050, providing only two data points for the interim period. At a minimum, the DEIS should present actual data for 1999 as a historical reference, and then project flows for the years 2000, 2005, 2010, and 2015, in addition to the longer-range projections, to provide the reader with a more precise understanding of the potential impacts of the various alternatives.

33

2. **Seasonal Scale** The DEIS projects monthly releases as proxies for seasonal flows to the delta. However, the months selected to represent seasonal flows (January, April, July, and October) do not reflect maximum discharge rates. The maximum quantity of flows to the delta in 1997, for example, occurred in the months of February, August, and September. Months should be selected based on their ability to represent maximum and minimum flows to the delta.

34

3. **Instantaneous Discharge** To provide a more accurate picture of transboundary impacts, the model should be adjusted to project instantaneous releases. Such discharge rates can be readily converted to river stage, allowing for an assessment of the potential to freshen backwaters in the U.S. and inundate the floodplain in Mexico below Morelos Dam. Both of these actions are critical for protecting and enhancing existing wetland and riparian habitat. Additionally, the DEIS states that uncertainty about water use in Mexico challenges efforts to predict potential effects of transboundary flows. The Pacific Institute agrees that it is reasonable to assume that Mexico will continue to maximize its consumptive use of Colorado River water. This use could be predicted by comparing the conveyance capacity of the Alamo Canal with instantaneous flow rates above Morelos Dam (effectively a run of the river diversion).

35

4. **Figures** The DEIS should clearly indicate the differences between the various alternatives under consideration. Many of these differences are slight and tend to be lost at the resolution displayed in the graphs in the DEIS. Figures 3.3-21a-d, for example, would benefit from limiting the x-axis to those values between 75% and 100%, which would enable the reader to draw a better distinction between the alternatives. Additionally, the DEIS incorrectly claims that the highest frequency of flows to the delta is expected to occur under the Six States

[7] Includes 0.108 MAF IID-MWD transfer (1999 level).

32: Figures and text were provided in the various sections of the DEIS and FEIS that describe current and historical conditions, many on an annual basis.

33: See response to Comment No. 13-27 for a discussion of seasonal analyses.

34: See response to Comment No. 13-28 for a discussion of model time steps.

35: Comment noted. All tables and figures have been updated to reflect data modeled for FEIS, and have been made more readable. The incorrect statement regarding frequency of flows to Mexico being greater for the baseline and flood control alternatives has been corrected.

Alternative (3.3-44). As shown in Figs. 3-3-21a-d, both the baseline and flood control alternatives would generate more frequent flows to the delta than the Six States Alternative.

7 STATE PLAN

36 The DEIS does not analyze the 7 State Plan, so its potential impacts can only be estimated from the projections for the Six State Plan. Beyond this failure to satisfy NEPA guidelines, there are several shortcomings associated with the 7 State Plan itself. Chief among these is that it does not require that California reduce its use from current levels of roughly 5.2 MAF/year to the state's legal entitlement of 4.4 MAF/year, a reduction of 0.8 MAF/year. Instead, the 7 State Plan states that California expects to implement projects generating 0.38 MAF of savings by 2011, 0.49 MAF of savings by 2016, and 0.54 MAF of savings by 2026, though it fails to provide a baseline for measuring such savings. Absent such a prescribed baseline, we assume that the savings will be measured against current levels of consumption. Yet this suggests that California will fall far short of the 4.4 MAF objective that is being promoted as the rationale for accepting greater depletions of Colorado River water and further harm to the environment.

The long-term Colorado River system management objectives require the Secretary to protect and enhance the environmental resources of the basin. Yet clause III.3.(f) of the 7 State Plan would preclude releases of water for any purposes other than those outlined in the Plan, including potential releases for the Lower Colorado River MSCP or releases to the Colorado River delta. This clause of the 7 State Plan is invalid and should be deleted. The *Arizona v. California* Decree (1964) established the Secretary of the Interior as River master and vested in him federal control of the Lower Colorado River. The states lack the legal authority to prohibit releases for other purposes.

SECRETARIAL DISCRETION

37 Allocation of surplus water, over and above the basic lower basin apportionment, is a discretionary function of the Secretary that can and should be exercised consistent with other responsibilities incumbent upon him for allocating the benefits of the river, planning its use, and protecting its resources. Past decisions on development, basic allocations, and operations were made before most of those other responsibilities had been articulated under laws and policies of the United States. This has resulted in serious environmental harm. Given this situation, the Secretary can and should use his discretion in this more enlightened era to the maximum extent possible to ensure that his decisions result in no further harm and, wherever possible, in an improvement of environmental quality.

Environmental needs must be met before any quantity of discretionary water is dedicated to consumptive uses. Until then it is not truly "surplus." Environmental losses were perhaps unfortunate consequences of the basic allocations embedded in the Law of the River and related development; but they need not be perpetuated when the Secretary has discretion over whether and when to allocate additional water. The Secretary recognized as much when he insisted that the surpluses must be determined and allocated with no net loss of environmental benefits.

36: The Seven States Proposal is identified as the Basin States Alternative/Preferred Alternative in the FEIS. The Basin States Alternative has been evaluated in this FEIS. Several particular sections of the Basin States Alternative, including III.3.(f) have not been incorporated in the Basin StatesAlternative/Preferred Alternative.

37: The Secretary, under the powers vested by Congress in Section 5 of the BCPA, as confirmed by Section II(B)(2)of the 1964 Decree, has certain discretionary authority to determine whether any year is a surplus, normal or shortage year. When more than 7.5 maf of Colorado River water is available for consumptive use during a calendar year in the three lower Division States, this is a surplus determination. Pursuant to the Decree II(B)(2), if sufficient mainstream water is available for release to satisfy annual consumptive use in excess of 7.5 maf, such excess consumptive use is surplus, and 50 percent shall be apportioned for use in California, 46 percent apportioned for use in Arizona, and 4 percent for use in Nevada. When making a surplus determination, the Secretary must apply the criteria in the Long-Range Operating Criteria (Section 602 of P.L. 90-537) in development of the Annual Operating Plan.

SOCIOECONOMIC IMPACTS

38 The DEIS fails to address the potential socioeconomic impacts of interim surplus criteria. The few remaining Cucapá living in the affected area, who traditionally subsisted on Colorado River fish and endemic grains, depend on Colorado River flows.[8] Decreasing the frequency and magnitude of these flows will negatively impact the Cucapá. Additionally, Colorado River flows are correlated with improved yields in the shrimp and fish harvests in the Upper Gulf of California,[9] a major source of employment in the area.[10] The reduced frequency and magnitude of such flows due to the sole and cumulative impacts of surplus criteria will have negative economic repercussions on fishermen and others in the affected area. These impacts should be assessed as part of the DEIS.

CONCLUSION

The Pacific Institute concludes that the DEIS is inadequate and should be formally revised and reissued for public comment as a Supplemental Draft Environmental Impact Statement. The deficiencies highlighted in these comments are of sufficient magnitude that they preclude a reasonable assessment of the potential environmental impacts associated with the adoption of interim surplus criteria.

[8] Daniel F. Luecke et al. 1999. *A Delta Once More*, pp. 7-8.
[9] Manuel S. Galindo-Bect et al. 2000. Penaeid shrimp landings in the upper Gulf of California in relation to Colorado River freshwater discharge. *Fisheries Bulletin* 98:222-225.
[10] Jason Morrison et al. 1996. *The Sustainable Use of Water in the Lower Colorado River Basin*. Oakland, CA: Pacific Institute for Studies in Development, Environment, and Security, p. 23.

38: The DEIS and FEIS include a section on "Environmental Justice" (3.15) for purposes of addressing potential economic and social impacts on minority and low-income populations. Executive Order 12898 establishes the achievement of environmental justice as a priority, but this direction is specific to minority and low-income populations in the United States. No socio-economic effects are anticipated due to implemnation of any of the interim surplus alternatives. In addition, the transboundary impacts section of the EIS, which addresses impacts to natural resources on Mexico, does not anticipate any adverse effects to sensitive biological resources along the river in Mexico. This includes potential impacts to commercial or subsistence harvesting of shrimp, fish or crops in Mexico.

September 8, 2000

Regional Director
Lower Colorado Region
Attention: Jayne Harkins (LC-4600)
Bureau of Reclamation
PO Box 61470
Boulder City, Nevada 89006-1470

4600

RE: Colorado River Interim Surplus Criteria Draft Environmental Impact Statement

Dear Jayne,

Southwest Rivers appreciates the opportunity to comment on the Colorado River Interim Surplus Criteria Draft Environmental Impact Statement (DEIS) developed by the Bureau of Reclamation. Southwest Rivers is a newly formed non-profit organization with a mission to protect and restore the river ecosystems of the Colorado River basin. Established by the staff and directors of other conservation organizations active in the Colorado River basin, Southwest Rivers is focused on the long-term health of the riverine ecosystems of the Colorado River watershed.

1 Southwest Rivers joins several other environmental groups in expressing substantial concerns about the impact of the proposed action on the Colorado River ecosystem. (We support the comments filed by the Pacific Institute for Studies in Development, Environment and Security, as well as those filed by the Defenders of Wildlife, et al.) Although the Department of the Interior and the Colorado River basin states have decided that the benefit of implementing California's plan to reduce its use of Colorado River water down to its legal entitlement is of paramount importance in the Colorado River system, we cannot agree. We are supportive of efforts to reduce California's use, but not at the expense of Colorado River ecosystems. California claims that availability of surplus water over the next 15 years is essential to the success of its plan. But since the long-term effects of reducing California's use are unlikely to provide any significant environmental benefits, since California currently relies on unused apportionments to provide the additional water used which in the future would then be used by other states, the short-term environmental costs of this proposed action are an unacceptable price to pay. We believe that there must be some element to the action that provides a benefit to the environment which counteracts the potential costs.

2

The DEIS as published is deficient in a number of ways. As it stands, it contains enough inadequacies, inaccuracies and omissions that it is incomplete for purposes of meaningful public review. Southwest Rivers recommends that a supplemental draft be prepared and distributed for comment prior to the preparation and release of a final environmental impact statement.

I. The DEIS Omits Material Essential for an Analysis of the Proposed Action

Southwest Rivers has identified a number of elements that are material to an analysis of the proposed action which have not been included in the DEIS.

1: Comment Noted.

2: Comment Noted.

A. The 7 State Plan must be included and analyzed in a DEIS if it is to be considered as an alternative

3 Following the July 7, 2000 publication of the DEIS, the Bureau of Reclamation on August 8 published the 7 States' proposed interim surplus guidelines (65 Fed Reg 48531). According to Reclamation, a "preliminary review" of the plan indicates that it lies "within the range of alternatives and impacts analyzed in the DEIS." However, since it has not been formally presented within the DEIS as an alternative, analyzed in the same manner as other alternatives presented in the DEIS, and contains different elements than other alternatives presented, it must be included and analyzed in a supplemental DEIS before it can be considered as an alternative and potentially selected as the preferred alternative. CEQ regulations require that the alternatives section of an EIS "present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decisionmaker and the public." (40 CFR 1502.14)

B. The "Pacific Institute" alternative is a reasonable alternative and should be included and analyzed in a DEIS

4 Article I(2) of the long-range operating criteria for the Colorado River Reservoirs requires a plan of operation that reflects "appropriate consideration of the reservoirs for all purposes, including...enhancement of fish and wildlife, and other environmental factors." (35 Fed Reg 8951) As a clarification of the long-range operating criteria, the development and implementation of interim surplus criteria are subject not only to the needs of California and the other basin states, but to the long-range operating criteria and other elements of the Law of the River and the laws of the United States, including NEPA and the ESA. The adoption of any of the current alternatives for interim surplus criteria or the 7 State Plan would not meet the Secretary's environmental responsibilities within system operations. The alternative submitted to Interior by the Pacific Institute and nine other environmental organizations meets both the purpose and need for interim surplus criteria and the Secretary's broader environmental responsibilities. Contrary to Reclamation's assertion on page 2-3 of the DEIS that "the delivery of water to or through Mexico would require modification of the Treaty," delivery of water to Mexico beyond the *minimum* amounts required by the treaty could be undertaken unilaterally by the United States. Therefore, the Pacific Institute alternative both meets the purpose and need for the action and is reasonable.

CEQ regulations on the preparation of NEPA documentation require that an EIS "rigorously explore and objectively evaluate all reasonable alternatives." (40 CFR 1502.14(a)) The exclusion of a reasonable environmental alternative that both meets the purpose and need for the action and includes limited dedication of resources for environmental purposes is arbitrary and capricious. A supplemental DEIS which fully includes and analyzes the Pacific Institute alternative should be prepared and distributed.

3: Please refer to the response to Comment 10-4.

4: An EIS need not consider an infinite range of alternatives, only reasonable and feasible ones and those reasonably related to the purposes of the project that afford a reasoned choice by the decision maker. The rule of reason shall be utilized in development of a range of alternatives. NEPA does not require a separate analysis of alternatives which are not significantly distinguishable from alternatives actually considered, or which have substantially similar consequences. For these reasons, Reclamation considered the Pacific Institute proposal but eliminated it from further analysis because part of it did not meet the purpose and need of the proposed action and the remainder of the alternative mirrored the Six State's Alternative which was analyzed in depth for the DEIS. Please also refer to the response to Comment 11-2.

C. The California "4.4 Plan" must be included

Integral to many of the alternatives presented in the DEIS is the implementation of the California plan to reduce the state's use down to its legal entitlement (frequently – although perhaps erroneously – referred to as the "4.4 Plan"). The DEIS explicitly states that "the Secretary may condition the continuation of interim surplus criteria for the entire period through 2015 on a showing of satisfactory progress in implementing the 4.4 Plan." (DEIS, 1-22) However, no version of this 4.4 Plan has been included in the DEIS. Without the 4.4 Plan it is impossible to measure the quantities of water involved in the alternatives that include implementation of the plan, and likewise it is impossible to gauge California's compliance. 5

We realize that all the details of the 4.4 Plan and its implementation have not been worked out. However, CEQ regulations mandate the inclusion of such materials in a DEIS: "If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement." (40 CFR 1502.22(a)) A supplemental DEIS which includes the California 4.4 Plan should be prepared and distributed.

D. The Upper Colorado River Commission's new depletion schedule must be included

The modeling and analysis that was included in the DEIS used a depletion schedule for the Upper Basin states that was developed in 1996. A new schedule was developed in 1999 (DEIS, 3.4-11). Given the importance of Upper Basin depletions to the results of the modeling and the determination of effects on the environment, the updated depletion schedule should be used in the modeling of effects and such model results should be made available for review prior to release of a FEIS. A supplemental DEIS which includes analyses based on the updated depletion schedule should be prepared and distributed. 6

E. The geographic scope omits areas of potential impact

A material failure of the DEIS is its omission of several potentially affected geographical areas in the geographic scope and subsequent analysis within the document. Of significant concern is the omission of the area from the Northerly International Boundary to the Southerly International Boundary (Limitrophe Division), as well as the river and its full floodplain within its delta in Mexico, all the way to the Gulf of California. These areas must be included in the supplemental DEIS. 7

F. Scope of Affects Analysis Inappropriately Omits Areas Subject to Other Environmental Mitigation Programs

In several places, the DEIS omits any affects analysis for a geographic area due to the existence of another existing environmental mitigation program. This is most notable in the analysis of affects of the proposed action within the Grand Canyon reach of the Colorado River, 8

5: The purpose and need acknowledge California's efforts to lower their Colorado River consumptive use. The DEIS did note that in Section 1.4, Related and Ongoing Activities, the 4.4 Plan, now the California Colorado River Water Use Plan (CA Plan), was under development. Further, the CA Plan is not a federal action. To the extent federal actions are required as part of the plan, each element will undergo appropriate environmental compliance. As evidenced by the recent draft version of the CA Plan, this is still a work in progress although various parties have different views. Reclamation has never viewed surplus as a part of the CA Plan. Moreover, the measure of progress in implementing the CA Plan concerns reduction in water need rather than physical or institutional arrangements.

6: Revised depletion schedules provided by the Basin States were used in FEIS analyses. See response to Comment No. 14-10 for more detail.

7: The area of potential effect has been expanded for the FEIS to include the Colorado River and 100-year floodplain to the Southerly International Boundary within the U.S. Section 3.16 of the EIS, Transboundary Impacts, addresses potential effects within Mexico.

8: An anlaysis of the frequency with which the triggering criteria for BHBFs and low steady summer flows would be met under each of the alternatives has been conducted for the FEIS (see Section 3.6). When compared to the baseline conditions, the probability of a BHBF being triggered under the preferred alternative is reduced by 1.1% during the interim period (through 2016) and by 0.1% during the remaining period (through 2050). The probability of a low steady summer flow being triggered under the preferred alternative is reduced by 2.9% during the interim period and increased by 0.3% during the subsequent period. Given the margin of error in forecasting runoff, these proposed minor changes are not expected to impact the resources in the Colorado River corridor form Glen Canyon Dam to the headwaters of Lake Mead.

which is currently managed through the Glen Canyon Dam Adaptive Management Program. The DEIS states that there may be effects from the action on Beach Habitat Building Flows (BHBFs) and low steady summer flows, and models some of the potential effects, but provides no analysis on the potential effects to the environment of impacting those management tools. Subsequent analysis of environmental consequences virtually ignores the Grand Canyon reach, based on a determination that beyond the affect of these actions on "river flows" this action has no affect on the Grand Canyon reach, and "the unaffected aspects of dam operations and the effect on downstream resources need no further analysis outside of the ROD and the Adaptive Management Program." (DEIS, 3.2-5)

cont'd

These omissions are inappropriate. CEQ regulations regarding analysis of environmental consequences requires discussions of, among other things, "indirect effects and their significance" (40 CFR 1502.16(b)) and "possible conflicts between the proposed action and the objectives of Federal, regional, State, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned." (40 CFR 1502.16(c)) The potential conflicts or affects of the proposed action on other environmental mitigation programs must be included in the supplemental DEIS.

G. Cumulative impacts are not fully addressed

9

The DEIS omits any discussion of cumulative impacts resulting from a number of other ongoing actions. Most notably, it fails to consider cumulative impacts from the actions following from the U.S. Fish and Wildlife Service's Biological and Conference Opinion on Lower Colorado River Operations and Maintenance (1997), impacts from the California 4.4 Plan, and impacts from the regulation for off-stream storage and banking. Such omissions should be corrected in the supplemental DEIS.

H. A Preferred Alternative is not identified

10

CEQ regulations require that agencies "identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference." (40 CFR 1502.14 (e)) The DEIS does not identify a preferred alternative. In the interest of meaningful public review and comment, a supplemental DEIS should be prepared and distributed which either identifies a preferred alternative or provides an explanation for why a preferred alternative does not exist.

II. Some Analysis in the DEIS is Deficient and/or Inaccurate

Southwest Rivers has identified a number of ways in which the analysis of the proposed action in the DEIS is deficient and/or inaccurate.

9: Additional information has been included in Section 4.2 of the FEIS to expand the cumulative impacts analysis. However, impacts of the California Colorado River Water Use Plan or from off-stream storage and banking is considered to be outside of the area of potential effect of the proposed action. The 4.4 Plan and off-stream storage by the California parties are ongoing and other projects are only proposals at this time. These potential actions are speculative at present and without decisions that constitute an action for analysis; and do not depend on interim surplus criteria but rather are state actions. Reasonably foreseeable California actions will be analyzed through the CEQA process and, if decision documents are available will be incorporated into this EIS. Actions required under the approved 1997 LCR Operations Biological Opinion are not subject to NEPA.

10: CEQ regulations do not require the identification of a preferred alternative in the DEIS, if none has been determined. A preferred alternative will be identified in the FEIS. Defining a preferred alternative in the FEIS does not define the agency's final decision but lets the public know what the agency considers the best alternative. No supplemental DEIS is required.

Southwest River comments on
Interim Surplus Criteria DEIS
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Page 5

A. Modeling assumptions may be inaccurate and create distortion of results

11 | Reclamation has used results of a basin-wide model to analyze the impacts of the various alternatives. However, the sensitivity of the model to certain questionable assumptions belies the confidence in the results, manifested in their detailed presentation, contained within the DEIS. In particular, the results of the model are most sensitive to projections of future inflows, the least reliable data, which may not even fall within the range of flows seen in the period 1906-1990, the range used for modeling. Furthermore, the accuracy of the model decreases the further it projects into the future.

Southwest Rivers suggests that several of the assumptions common to all alternatives be refined.

12 | • The Index Sequential Method (ISM) used in the model may not capture the full range of potential inflows, given the extreme variability that characterizes the Colorado River system. We suggest that a partially random model be used in order to increase the range of possible flows in the interim period.

21 | • As mentioned above, more recently developed depletion schedules for Upper Basin use are available. We suggest that the more recent schedules be used in the model.

22 | • We recommend that the starting elevation for Lake Mead be changed from the level on January 1, 2000 to the projected elevation on December 31, 2000, which is expected to be approximately thirteen feet lower due to lower than average inflows in 2000.

23 | • The model assumption for the delivery point to Mexico is inaccurate. We suggest that the model be refined to reflect the actual delivery point at the SIB, the fact that the SIB delivery is not made within the delivery channel, and the fact that SIB deliveries are actually Arizona return flows rather than mainstem water.

24 | • The model assumes operation of the Yuma Desalting Plant by 2015, but the DEIS gives no justification for the assumption. The model should eliminate this assumption unless and until the environmental impacts of operating the YDP have been analyzed and documented.

Similarly, we suggest that some of the assumptions particular to individual alternatives be clarified or refined.

25 | • The baseline, which in essence follows the "criteria" used in 1997 (equivalent of a 75R strategy) to declare a surplus, appears to have been arbitrarily selected. Surplus declarations were made by the Secretary without formal criteria for the years 1996 through 2000. Selecting 1996 as the baseline would have created a baseline from a much more liberal definition of surplus, while selecting the years 1998-2000 would have created a baseline that matched a flood-control definition of surplus. Given the importance of the baseline (No Action) alternative in evaluating the other alternatives, Reclamation should explain why it used a single year (1997) as the correlative of the baseline condition instead of the three most recent years of surplus declarations.

26 | • The baseline and flood control alternatives assume that California will consume only about 4.4 maf a year. This does not accurately reflect actual conditions. If California were only

11: See response to Comment No. 31-8a for a discussion of the Index Sequential Method of modeling.

12: See response to Comment No. 31-8a for a discussion of the Index Sequential Method of modeling.

21: Revised depletion schedules provided by the Basin States were used in FEIS analyses. See response to Comment No. 14-10 for more detail.

22: The starting Lake Mead elevation used in the FEIS model was changed from January 1, 2000 to January 1, 2002 in order to reflect estimated reservoir conditions at the beginning of the interim surplus period. Reclamation used the 24-month study model to develop a January 1, 2002 projection based on reservoir content in September 2000 and forecasted and average future hydrologic conditions. This enabled setting the FEIS model start date to match the interim surplus criteria start date of January 1, 2002.

23: The delivery of Colorado River water to Mexico was simplified in the model to simplify and facilitate the analysis of water deliveries to Mexico. An explanation of how water is actually delivered to Mexico and the modeling assumptions with respect to the delivery of water to Mexico has been added to Section 3.3.3.3 (General Modeling Assumptions).

24: The FEIS assumed that the Yuma Desalination Plant would be operational after 2022. See response to Comment No. 37-11 for further discussion.

25: The 75R modeling criteria used in the DEIS has been changed to 70R for the FEIS. Section C of this volume includes a discussion of this change.

26: Reclamation assumes that California will abide by the use determinations as spelled out in Article II(B)(1-3) of the Decree, therefore ALL alternative model runs assume a California use of 4.4 maf when the Secretary makes the determination of a normal year (7.5 maf available) in accordance with Article II(B)(1) of the Decree. California has prepared and submitted depletion schedules that specify the amount of water scheduled for delivery and the location at which delivery is requested under normal, surplus and shortage water supply conditions. The delivery of water to California during the interim surplus criteria period is dependent on the prevailing water supply conditions and is modeled pursuant to this and the applicable depletion schedule. A copy of the revised depletion schedule prepared and submitted by California and used for the modeling of the baseline and surplus alternatives for the FEIS is included in Attachment H.

cont'd

consuming 4.4 maf per year, there would be no need for interim surplus criteria. In fact, it is highly unlikely that California will fully reduce its use to 4.4 maf (a fact apparently reflected in its Plan), and inconceivable that is will reduce its use by more than 0.8 maf in a single year. Therefore, the baseline and flood control alternatives should be modified to reflect a more realistic projection of California's use.

B. The presentation of model results needs improvement

To improve the presentation of the model results and allow improved review and comment upon the alternatives and their environmental impacts, we suggest the following modifications:

13
- Present annual-scale model results at more frequent data points. Begin with actual 1999 data as a baseline, then give model results for, at the minimum, the years 2000, 2005, 2010 and 2015, in addition to the results provided for the period following termination of the interim surplus criteria.

27
- Select "representative" monthly flow results, intended to show seasonal changes in flows to the delta, that capture actual maximum and minimum flows to the delta. The months selected (January, April, July and October) are unlikely to capture true seasonal variability in flows.

28
- In order to determine river stage, which is important in determining impacts to riverine shoreline habitats and the potential for over-the-bank flows in the floodplain in Mexico below Morales Dam, the model should be modified to project instantaneous releases.

C. The predictability to California is overstated

14
The Purpose and Need for the action states that "through adoption of specific surplus criteria, the Secretary will be able to afford mainstream users of Colorado River water, particularly users in California who currently utilize surplus flows, **a greater degree of predictability** with respect to the likely existence, or lack thereof, of surplus conditions on the river in a given year." (DEIS, 1-3, emphasis added) This is inaccurate, and overstates the predictability of surplus flows in a given year, especially to California (who will be relying most heavily on availability of such flows). Any declaration of surplus is *primarily* dependent upon hydrology and inflows. Storage conditions will also influence the likelihood of surplus flows, but even storage conditions can be overshadowed by extreme inflow conditions. Should the Colorado River system enter into an extreme and prolonged drought beginning in 2001, there may be no surplus declarations within the 15 year interim period, despite the fact that surplus flows are anticipated by the action to provide California with a "soft-landing" while it makes strides to reduce its consumption of Colorado River water. The purpose and need statement should be revised to reflect the reality that the action may provide greater predictability of surplus flows given a set of inflows and storage conditions, but the absolute predictability of surplus flows remains low.

13: Additional explanation has been added to Section 3.3.and Section 3.4 with respect to the interpretation of the figures in these sections and the meaning of the analysis results.

27: The intent of the analysis presented in Section 3.3.4.5 was not to evaluate the maximum or variation in seasonal flows to the delta but rather to evaluate and acquire an understanding of the potential effect of the surplus criteria under the modeled surplus alternatives relative to the modeled baseline conditions. Reclamation is of the opinion that the analysis presented in Section 3.3.4.5 accomplishes this.

28: The RiverWare model is a monthly time step model and as such is limited to evaluation of Colorado River operation conditions on an aggregated monthly basis. Reclamation will take this suggestion into consideration when making future improvements to the RiverWare model.

14: Reclamation agrees that we can not absolutely predict when surplus flows will be available in coming years. Inflow into the Colorado River and carryover storage from year to year are the variables in the system with the greatest impact on the system. However, Reclamation believes that the DEIS was accurate regarding predictability and that given certain hydrologic assumptions users will be able to predict with greater certainty the existence of surplus and expected amounts of surplus available, doing away with the dynamic factors currently used in the AOP.

D. California's use does not drop to 4.4 maf with this action, nor are there terms for determining California's non-compliance and subsequent termination of the criteria

15 The purpose and need for this action seems to indicate that implementation of the action will facilitate California's reduction of use of Colorado River water down to its legal entitlement of 4.4 maf during the fifteen year interim period. However, as indicated earlier, it appears that California will not get down to 4.4 maf, and perhaps will not even attempt to do so within its Plan. This reality undermines the purpose and need for the action.

Furthermore, although the DEIS states that the Secretary "may condition the continuation of interim surplus criteria for the entire period through 2015 on a showing of satisfactory progress in implementing the 4.4 Plan," (DEIS, 1-22) there are no mechanisms set out within the DEIS for determining what constitutes satisfactory progress, and no terms for terminating the interim surplus criteria based on California's non-compliance. These mechanisms and terms are essential, and should be included in a supplemental DEIS.

E. The analysis of transboundary impacts is inadequate

16 Although it is encouraging to see that the DEIS addresses transboundary impacts, the analysis is cursory and based on less-than-current data. The analysis fails to acknowledge the potential impacts to the Gulf, the listed species (vaquita and totoaba) in the Gulf, and the socioeconomic impacts of further reductions in flow to the Gulf.

F. Critical habitat for bonytail and humpback chub is incompletely stated

17 Designated critical habitat for the bonytail as stated in the DEIS (3.8-19) omits the section in the Colorado River from Hoover Dam to Davis Dam (including Lake Mohave to its full pool elevation) and Lake Havasu (to its full pool elevation). (50 FR 13374) The statement of designated critical habitat for the humpback chub (3.8-21) is also incomplete. It omits designated critical habitat in Grand Canyon, which includes the Colorado River from Nautiloid Canyon (RM 35) to Granite Park (RM 209) and the lower 8 miles of the Little Colorado River. (50 FR 13374)

G. The effect on whitewater boating in Cataract Canyon is omitted

18 The DEIS incorrectly states that "the only effect that the implementation of the interim surplus criteria alternatives would have on whitewater boaters would be the lowered pool elevations in Lake Mead." (DEIS, 3.9-34) During the period of implementation, Lake Powell end of year elevations are projected to decline, dipping below 3,640 elevation for the Shortage Protection Alternative in 2015 (Figure 3.9-1) As Lake Powell elevations decline, additional rapids are exposed in Cataract Canyon, expanding the whitewater boating opportunity in that stretch of river above Lake Powell. Therefore, implementation of the action would have a positive impact for whitewater boaters in Cataract Canyon during the implementation period.

15: See response to Comment 11-9. Whether or not California actually reduces to 4.4 maf does not eliminate the need for objective criteria that are subject to periodic reviews. Reclamation believes the preferred alternative meets the purpose and need and also will assist California in moving towards using 4.4 maf during the term of the interim surplus criteria.

16: Section 3.16.5.3 has been added to the FEIS to provide additional information on the general potential impacts that the implementation of the interim surplus criteria may have on the frequency of excess flows to Mexico as well as the potential resultant impacts to groundwater recharge and salinity south of the international border. Section 3.16.6 has been expanded to include additional information about potential impacts of the proposed interim surplus criteria on special status species and their habitat which may occur in both United States and Mexico. The Executive Order on Environmental Effects Abroad, as discussed by 3.16.2, focuses on impacts to natural resources, and specifically excludes consideration of socioeconomic impacts.

17: The descriptions of designated critical habitat have been corrected for the bonytail and humpback chub.

18: Section 3.9.4 has been revised to include the beneficial effects of lower pool elevations for whitewater boating in the Colorado River at the headwaters of Lake Powell.

*****

Southwest Rivers declines to formally comment on the 7 State Plan, since it has not been presented in a DEIS as an alternative. However, preliminary review of the plan spurs us to point out several deficiencies which should give Reclamation pause when considering its inclusion in present form as an alternative in a supplemental DEIS.

First, the proposal in its current form does not conform with the purpose and need of the interim criteria. The 7 State Plan does not provide a starting point for measurement of California's consumption, but given that such consumption has been as high as 5.2 maf in recent years and the plan envisions maximum conservation of 490,000 af by 2016, this plan will fail to bring California within its legally entitled use during the implementation period.

19

Second, the proposed plan inappropriately attempts to constrain the Secretary's discretion to allocate unused apportionments under Article II(B)(6) of the Supreme Court Decree in *Arizona v. California*. The states may not dictate how the Secretary is to use his discretion in making such allocations, and should the Secretary wish to establish firm guidelines for the exercise of his discretion, as he is currently doing in regard to surplus criteria, he would arguably be subject to the requirements of NEPA.

Finally, the proposed plan inappropriately attempts to preclude releases of water for any purposes other than those outlined in the Plan. This would preclude potential releases for environmental mitigation. The Secretary may need to release water to meet his other legal responsibilities as water master in the lower Colorado River, and the states lack legal authority to prohibit him from making releases for other purposes.

In conclusion, Southwest Rivers believes that the DEIS is inadequate and must be revised, augmented and reissued as a Supplemental DEIS. We feel that the omissions and deficiencies that we have identified in these comments clearly point out that the DEIS is so

20

inadequate as to preclude meaningful analysis. We earnestly hope that the supplemental DEIS will recognize the core fact that environmental needs *must* be met before any quantity of discretionary water is dedicated to consumptive uses. Until that occurs, the additional water is not truly "surplus."

Feel free to contact me if you have any questions about our comments.

Sincerely,

Pamela Hyde

Pamela Hyde
Executive Director for Policy
Southwest Rivers

19: The preferred alternative in this FEIS has been derived from the Seven States proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures.

20: Reclamation does not concur with the opinion expressed in this comment. The analysis of effects of the alternatives on reservoir levels and river flows, and the potential effects on resources, provide a meaningful disclosure of effects for public consideration and permit a reasoned choice by the decision maker. This FEIS contains various refinements and additional detail from public comment, modeling, and coordination with interested parties and agencies.

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September 8, 2000

BCOO/1000
4600

Regional Director
Lower Colorado Region
c/o Jayne Harkins, BCOO-4600
Bureau of Reclamation
PO Box 61470
Boulder City, NV 89006-1470

Dear Ms. Harkins:

The Central Arizona Water Conservation District (CAWCD) is offering written comments on the Draft Environmental Impact Statement regarding the proposed Colorado River Interim Surplus Criteria. CAWCD is the local governmental entity with the responsibility for repayment to the USBR for the reimbursable construction costs of the Central Arizona Project (CAP) and for operation and maintenance of the CAP.

1 As the CAP has junior water rights on the Lower Colorado River, we are the water user entity most severely impacted by shortages. As the CAP and Arizona are not yet fully utilizing our full apportionment for direct use, CAP is the least likely to benefit from more frequent surplus supplies. Nonetheless, CAWCD will generally support interim surplus criteria that creates more frequent surplus supplies, principally for the benefit of California, as part of an overall plan for California to develop the capability of living within its 4.4 MAF base allocation of Lower Colorado River water. However, this interim surplus criteria must be hydrologically reasonable and contain certain provisions to receive CAWCD's support. The alternative that best meets our concerns is the 7-Basin States' Proposal.

2 The Draft Environmental Impact Statement (DEIS) considers a broad range of alternatives that readily encompasses the criteria and impacts associated with the 7-Basin States' Proposal. The addition of the 7-Basin States' Proposal through the separate Federal Register notice should allow ample opportunity for consideration as the Secretary develops the final recommendation. During the scoping process, CAWCD and others stated that we did not feel the EIS process was necessary or helpful, reasoning that the Secretary could develop surplus criteria or guidelines within the parameter of the Long Range Operating Criteria and as a part of the Annual Operating Plan process. The EIS process is, however, well underway and should lead to a timely decision in this matter.

1: The preferred alternative in this FEIS is derived from the Seven States proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with Reclamation policy and operational procedures.

2: The Department notes that CAWCD did not "fell the EIS process was necessary or helpful". The Secretary has determined that development and implementation of interim surplus criteria is a discretionary federal action that may have significant impacts on the environment, thus is subject to NEPA process through the preparation of an EIS. The EIS analyzes the potential impacts to resources and forms the technical basis for the Secretary to make an informed decision in the Record of Decision of which alternative best meets the purpose and need for the proposed action and what impacts are expected.

Ms. Jayne Harkins
September 8, 2000
Page 2

3 Despite man's efforts, we have not been able to control the Colorado River. It is a river of wide variation in river flows, from flood to dry, even with all of our storage reservoirs. The studies portrayed in the DEIS demonstrate that over the next 50 years the reservoirs and river flows will experience the same range of highs and lows, no matter what alternative criteria are used over the next 15 years. Only the frequency and duration of the time spent in various conditions will change. There appears to be no conclusively measurable impact upon habitat. We have been able to harness the river and reap some of its benefits: water supply, flood control, hydro power, recreation and managed habitat. All of the model studies that were performed can help us to predict the impact of alternative operating strategies on the primary benefits of flood control, water supply, and hydro power. Interim surplus criteria most directly affects water supply. As previously noted, the CAP is the project most affected by changes in water supply.

3: Comment noted.

4 Absent a need to address and assist California water issues, CAP would prefer to stay with the 70R Baseline criteria. Within the range of alternatives considered, the 7-Basin States' Proposal has the most reasonable hydrologic criteria for a tiered plan to quantify and reduce the surplus supply as reservoir storage is reduced. It is the only alternative that requires California to accept the risk of increased shortages by agreeing to accept the first 1.0 MAF of shortage if the interim criteria do, in fact, cause more frequent or more severe shortages.

4: The 70R strategy was used as the baseline in the FEIS. The Basin States alternative in this FEIS is derived from the Seven States proposal.

There are a few areas in the 7-Basin States' Proposal that need improvement.

5 1) There needs to be more detail on how California will bear the additional shortage risk and how those conditions will be enforced.

5: The Secretary intends to appropriately report the accumulated volume of water delivered to MWD under surplus conditions. The Secretary intends to honor forebearance arrangements made by various parties for reparations of future shortage conditions.

6 2) There is some inequity in that MWD is allowed to divert and bank surplus Colorado River water for "off-stream banking" as part of its "Direct Delivery Domestic Use". Yet, Arizona is allowed to do "off-stream banking" only at the two highest levels of surplus, i.e., quantified surplus at 70R and flood control surplus. In the context of an overall consensus agreement, CAWCD may be willing to accept this inequity. Our hope is that the river system will often be in a 70R mode over the next 15 years.

6: Comment noted.

7 3) The shortage criteria used in all of the DEIS studies, including the 7-Basin States' Proposal, are based on specific Lake Mead elevation levels. One is 1083 msl, as the minimum power pool; another is 1000 msl, the elevation of the lower Southern Nevada Water Authority (SNWA) intake; the 7-Basin States' Proposal is 1050 msl, the upper SNWA intake. All of these specific elevations are economic criteria. The shortage trigger should be a water supply/current demand driven analysis similar to the 602(a) criteria for Lake Powell storage. It should be the current level of storage needed to support deliveries to the Lower Basin states without causing the CAP supply to fall below 1.0 MAF (or Arizona below 2.3 MAF) during the most critical period of record.

7: There are no established shortage criteria for the operation of Lake Mead. Further, the development and evaluation of interim surplus criteria under this FEIS is not intended to establish shortage criteria for the operation of Lake Mead. However, it was necessary to include some shortage criteria in the model simulations to address concerns related to low Lake Mead water levels. The selected Lake Mead level protection assumptions were applied to the model to facilitate the evaluation of the baseline conditions and surplus alternatives.

8 The primary reason to consider interim surplus operating criteria is to allow and require California to take the actions necessary to reduce its use of Colorado River water to 4.4 MAF. It

8: As discussed in the purpose and need, the purpose is to provide "a greater degree of predictability" of when surplus water is, or is not, available. Reclamation agrees that some of the interim surplus criteria alternatives would facilitate California's reduction of its water use to 4.4 maf. However, this is not the primary purpose. As noted in Section 2.3, the interim surplus criteria would terminate at the end of the 15-year period. In the absence of subsequently specified criteria, surplus determinations would be made as is currently done, as part of the AOP process. Section 1.4.1 discusses the termination of the interim surplus criteria prior to the end of 15 years.

cont'd | is particularly disturbing to note in paragraph S.4.4 of the DEIS that the "Secretary may choose to terminate the interim criteria and revert to the current method" if California fails to meet its goals. We believe the commitment to terminate the interim criteria must be an enforceable agreement among the states and the Department of the Interior, not a purely discretionary action on the part of the Secretary.

9 | As the single largest contract holder for Arizona's share of Hoover B power, we are interested in the impacts of interim criteria on the long term trends of Hoover power production. The model studies indicate, as expected, that in all scenarios increasing demands for water supply will lower reservoir levels and the resulting loss of power head will reduce generation. In analyzing the various alternatives, the DEIS compared the changes in hydropower production on a regional basis, noting that the hydropower provides only 3.6% of the region's resources. It would be more helpful if the impacts were noted on the specific group of federal hydropower contractors. This would be more consistent with the analysis of the economic impacts on pumping costs for the SNWA or the economic impact analysis on recreation facilities at Lake Mead and Lake Powell.

10 | The DEIS is quite detailed. We question some of the modeling assumptions used, particularly the surplus demand schedule, but will not offer any specific comments. We believe adequate comments on modeling concerns were raised at the modeling workshop conducted by Reclamation.

11 | We disagree with the analysis of the impact of shortages. On page 3.4-5, the DEIS states that shortages will impact agricultural water use and recharge initially, then M&I use later. We believe shortages will impact Indian use if current settlement discussions result in non-Indian agriculture being reallocated for Indian use. In addition, some Indian agricultural water is shorted before M&I. While there is more detail included in Tables 3.14-3 and 3.14-4, there is some confusion because both Tables have the same title. We believe Table 3.14-4 should be titled . . . With GRIC . . . In any case, it doesn't appear the assigned shortages are consistent with our interpretation of current priorities or with the priority scheme developed in the GRIC settlement discussions.

12 | CAWCD believes that the DEIS improperly considers the impacts in Mexico from Reclamation's actions in the United States. In general, there is a strong presumption against the extraterritorial application of U.S. laws. The courts have held that NEPA, in particular, should not be applied outside the United States, in part because of potential conflicts with foreign policy and treaty matters. That is especially true here, given the 1944 treaty with Mexico.

13 | The CAWCD supports the comments offered by the Arizona Department of Water Resources and intends these comments to complement and supplement their comments.

9: Comment noted. Reclamation believes that the level of analysis for energy resources presented in the EIS appropriately identifies the potential effects of interim surplus criteria.

10: The water depletion schedules used in DEIS for the modeling of the baseline conditions and surplus alternatives were revised and updated by the Basin States for the FEIS. The individual states developed these revised schedules in coordination with Reclamation, the various Colorado River water contractors, Indian Tribes and local agencies. A summary of the updated Upper and Lower Division depletion schedules are presented in Attachments H and K of the FEIS, respectively.

11: The modeled Colorado River water deliveries under the baseline conditions and surplus alternatives assumed that all Arizona shortages would be absorbed by the Central Arizona Project. Reclamation acknowledges that under the current priority framework, there would be some sharing of Arizona shortage between the Central Arizona Project and other Priority 4 users. However, the bases or formula for the sharing of Arizona shortages is the subject of current negotiations and as such, could not be adequately modeled for the FEIS. The water supply conditions modeled for the FEIS were used to evaluate the relative differences in water deliveries to each state under baseline conditions and the surplus alternatives. The normal, surplus and shortage condition water depletion schedules modeled in the FEIS are consistent with the depletion schedules prepared by the Basin States for this purpose.

12: The applicable guidance appears to be contrary to your comment. EO 12114, Environmental Effects Abroad of Major Federal Actions, 44 FR 1957, 1979 WL 25866 (Pres.) requires that federal agencies "... consider the significant effects of their actions on the environment outside the U.S., its territories and possessions,..." Recent CEQ guidance for transboundary impacts, dated July 1,1997, appears consistent with the approach in the Executive Order.

13: Comment noted.

Ms. Jayne Harkins
September 8, 2000
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In summary, CAWCD can support the 7-Basin States' Proposal with: 1) a stronger enforcement mechanism in the event that California does not comply with its 4.4 MAF plan; 2) enforceable commitments for California's reparation for increased water supply shortages; and 3) a commitment to develop more specific supply/demand shortage criteria similar to the 602(a) criteria used for Lake Powell in the future.

Sincerely,

for David S. "Sid" Wilson, Jr.
General Manager

jlm
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1001.06
cc: Rita Pearson, ADWR

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September 8, 2000

File: 0022139
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BC00-4600

Jayne Harkins, BC00-4600
U.S. Department of the Interior
Bureau of Reclamation
Lower Colorado Regional Office
Post Office Box 61427
Boulder City, Nevada 89006

Dear Ms. Harkins:

This letter is in response to your transmittal of the draft Environmental Impact Study for the Colorado River Interim Surplus Criteria. The district values the opportunity to comment on this document.

Our comments are detailed in the enclosed Attachment A.

If you have any questions please call Robert Robinson, resource engineer, extension 424.

Yours very truly,

for Tom Levy
General Manager-Chief Engineer

Enclosure/1/as

RAR:jl\eng\resource\2000\harkins

TRUE CONSERVATION
USE WATER WISELY

Interim Surplus Guidelines

Coachella Valley
Water District

ATTACHMENT A

1. Page 1-21, Section 1.4.1 California Colorado River Water Use Plan (4.4 Plan)

The Bureau of Reclamation implies that Interim Surplus guidelines will be in place prior to implementation of the 4.4 Plan and its associated settlement agreement quantifying the third, fourth, fifth and sixth priority California Colorado River water contractors.

1 These comments are submitted with the understanding that the issues outlined in Quantification Settlement Agreement will be resolved on the time table set by the Secretary of the Interior. The district reserves the right to modify and add to these comments in the event progress does not proceed according to the agreed upon time table; it being understood that lack of progress on the Quantification Settlement Agreement would materially change the scope and impact of the proposed Interim Surplus Guidelines.

2. Page 2-5, Section 2.3 Last Paragraph

2 One of the difficulties in administering Colorado River water rights among the California Colorado River contractors is the unquantified nature of the priority system contained within federal contract. The priority system implicitly redefines Colorado River water, not as a private commodity subject to private sale under a free enterprise system, but as a managed commodity restricted to a specific service area and subject to reasonable and beneficial use. The Description of Alternatives does not describe the duty of the Secretary to actively enforce his contracts by ascertaining the reasonable and beneficial use of water by each contracting party.

Page-1

1: Comment noted.

2: The Secretary's responsibilities in administering the river system and water delivery contracts are addressed in Chapter 1. For further information regarding reasonable and beneficial use and Reclamation's authority, see response to 56-29.

3. Page 3.4-6, 3.4.3.3 State of California, *Law of the River*

3 One of the difficulties in federal oversight of California's use of Colorado River water has been a priority system which allows water to cascade from one priority to another. In order for such a priority system to work, the locations where Colorado River water can be used in California must be limited to a highly detailed, specific service area. Without a specific area limitation, the priority system outlined by federal contract would not work. A description of this difficulty needs to be included between the sentence describing the *Law Of The River* and the 1964 Supreme Court Decree.

3: We note your comment and have added a third paragraph under Section 3.4.3.3 to add more details on the California priority system.

2.3.3 and 2.3.4

4 The establishment of Tiers 1 through 3 for the both the Six States Surplus Alternatives and the California Surplus Alternatives are a defacto rearrangement (Attachment D page7, Attachment E page A-5) of the California priority system. This rearrangement does not take place until execution of the Quantification Settlement Agreement which is a key element of the California 4.4 plan. The CVWD agrees with the combination approach taken including both water transfers and multi-tiered surpluses .

4: Comment noted.

5 More importantly, wording should be included stating that unilateral implementation of the Surplus Guidelines by the Bureau of Reclamation without the combined implementation of the Quantification Settlement Agreement and 4.4 Plan would favor one party at the expense of another party. i.e. a higher priority agricultural water contractor will be able to divert additional Colorado River water while transferring water outside of the existing priority system.

5: Comment noted. No transfers of California Colorado River entitlements may occur without the approval of the Secretary of the Interior. Mere determination of the operational criteria for surplus condition pursuant to the LROC favor no particular party in any state. Surplus waters are distributed in accordance with Article II(B)2 of the Decree unless other voluntary arrangements among the parties are in place.

4. Page 3.4-19, 3.4.4.2 State of California

6 The runs incorporating multi tiers and water transfers change the priorities among the California Colorado River water contractors (Attachment G schedules).

Wording should be inserted that the computer model contains the assumption that guideline implementation has a "transition" period allowing for the orderly movement from the existing priority system to the interim system.

6: We note your comment and have revised the first paragraph under Section 3.4.4.2, to address the transition period.

5. Page 3.16-1, Section 3.16-2 Methodology

7 The waters of the Colorado, once delivered, are the exclusive property of Mexico. The Bureau of Reclamation in extending the scope of the Environmental Impact Statement beyond the United States implies an extension of federal authority into a foreign country whose courts and laws do not recognize that authority. This document, if it is to include discussions on impacts in Mexico, must be reviewed and approved by the U. S. State Department prior to publication. If the review and approval of the State Department is not secured, Section 3.16 Transboundary Impacts must be deleted.

7: Nothing in the DEIS implies an extension of U.S. federal authority into Mexico, nor could it. The US Section of the International Boundary and Water Commission (USIBWC) is a cooperator in this EIS process. As such, the USIBWC had an opportunity to review and comment on the DEIS and this FEIS prior to public availability. Accordingly, we decline the request to delete Section 3.16.

6. Page 4-1 Cumulative Impacts, second paragraph regarding intrastate water transfers.

8 Because the California priority system is a relative system of water allocation, any project or agreement between two parties with differing priorities will have impacts on other intermediate priorities. Therefore a guiding principle in the Quantification Settlement negotiations has been that implementation of the Quantification Settlement Agreement will occur all at once. i.e. all elements combined as one package and no single element being implemented outside the Quantification Settlement Agreement. The cumulative impacts section should contain wording indicating that the Interim Surplus Guidelines are both a condition precedent of the Quantification Settlement Agreement, and an integral part of the California Colorado River Water Use Plan.

8: The purpose and need of the proposed action is to provide more specific surplus criteria and increased predictability with regard to surplus determinations. Reclamation is preparing a separate NEPA document to consider the Secretarial Implementation Agreements associated with the California Colorado River Water Use Plan.

Section 4.2 has been modified and Reclamation believes that it has appropriately addressed potential cumulative effects of the proposed action. Reclamation does not believe the adoption of surplus criteria is a component of the "California Plan," but does believe that surplus criteria should neither frustrate nor hinder California's efforts to reduce its Colorado River water use.

CREDA
Colorado River Energy Distributors Association

ARIZONA
Arizona Municipal Power Users Association
Arizona Power Authority
Arizona Power Pooling Association
Irrigation and Electrical Districts Association
Navajo Tribal Utility Authority (also New Mexico, Utah)
Salt River Project
COLORADO
Colorado Springs Utilities
Intermountain Rural Electric Association
Platte River Power Authority
Tri-State Generation & Transmission Cooperative (also Nebraska, Wyoming, New Mexico)
Yampa Valley Electric Association, Inc.
NEVADA
Colorado River Commission of Nevada
Silver State Power Association
NEW MEXICO
Farmington Electric Utility System
Tri-State Generation & Transmission Cooperative
City of Truth or Consequences
UTAH
City of Provo
Strawberry Electric Service District
Utah Associated Municipal Power Systems
Utah Municipal Power Agency
WYOMING
Wyoming Municipal Power Agency

Leslie James
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CREDA
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September 7, 2000

Ms. Jayne Harkins
Bureau of Reclamation
Attn: BCOO –4600
PO Box 61470
Boulder City, NV 89006-1470
(fax: 702-293-8042)

RE: COMMENTS ON DRAFT EIS ON COLORADO RIVER INTERIM SURPLUS CRITERIA

Dear Ms. Harkins:

The Colorado River Energy Distributors Association (CREDA) is an association of over 133 consumer-owned electric systems that purchase and distribute more than eighty-five percent of the energy produced by the Colorado River Storage Project (CRSP). In addition, CREDA members repay nearly ninety-five percent of the federal investment in the CRSP. CREDA member systems serve nearly three million consumers in six Western states. CREDA represents the majority of CRSP firm power contractors, who have a direct and specific interest in issues, which could affect Glen Canyon Dam operations and output.

1 CREDA has reviewed the DEIS on the Interim Surplus Criteria, and finds that under any of the alternatives, including the base case, there will be significant impacts to the firm power contractors of the federal power projects on the Colorado River. CREDA also finds that these impacts are not adequately recognized, analyzed or measured in the DEIS.

2 When the DEIS is being used as a planning process, which seems to be the case here, it is essential that it be a process which integrates impacts on all the resources. It is clear that power resources have not been fully integrated into this planning and analyses. The analyses of impacts does not accurately reflect: 1) the operating restraints on certain of the power plants, 2) how the plants are operated, or 3) the impacts of changed power operations on the firm power contractors. For example:

3 I. Sec. 3.10.2.2.1 – does not seem to recognize the greatly reduced generating capacity at Glen Canyon Dam which resulted from the Glen Canyon Dam EIS and Record of Decision. It also seems that the study assumed operating points at which both Glen Canyon and Hoover operate most efficiently. The plants are most often not operated at these points due to scheduling entities' use of the plants for regulation and reserves. The assumption skews the results and tends to minimize the impacts of changed operations.

4 II. Sec 3.10.2.2.2 –is far too simplistic in its assumption that the impacts will felt through a large area (WSCC) and are therefore minimal. What must be measured are the direct financial impacts to the power contractors. In the case of

1:The EIS analysis is intended to be an analysis of the alternatives compared to the baseline projections. As discussed in Section 3.1.3, baseline projections are used to compare possible future without interim surplus criteria to future with interim surplus criteria conditions. Under baseline conditions and each of the alternatives, the fact that reservoir elevations will have an increased probability to fall over time is predominantly a result of increased depletions in the Upper Basin states. Reclamation believes that the level of analysis for energy resources presented in the EIS, and the comparison of the alternatives to baseline conditions appropriately identifies the potential effects of interim surplus criteria.

2: The analysis shows the effects of each alternative reservoir operating strategy when compared to the baseline strategy. Increases or decreases in energy and capacity between the baseline strategy and the alternatives are shown on a yearly basis. This analysis accurately reflects the operating constraints on the powerplants in the modeling parameters. Powerplant operations change daily with differing conditions, but from an overall power production perspective, the analysis results provide a useful comparison of the anticipated reduction in energy and capacity within the WSCC region. A substantial portion of the reduction is included in baseline conditions; alternatives would result in incremental changes. The quantities of capacity needed to replace incremental reductions, while not significant when compared to the total capacity installed in the WSCC region, may have impacts on power contractors that must purchase replacement power. These impacts were not analyzed in the FEIS.

3: This analysis is not intended to analyze the effects of the Glen Canyon Dam Operation EIS and Record of Decision. The assumptions that were used for interim surplus criteria modeling related to operating points were used in the analysis of power production for both baseline conditions and each of the alternatives. Since the analysis contained in this EIS is concerned with the difference between baseline conditions and the alternatives, and the underlying assumptions are the same for all cases, the net difference should not change substantially.

4: Please see response to Comment 16-2.

cont'd | Glen Canyon, as power production is reduced there is a direct and immediate upward impact on power rates. There is also an immediate additional cost to the contractors who must pay the costs of replacing the lost energy and capacity. The DEIS is completely silent on these impacts.

5 | III. Sec. 3.10.2.3.1 – the proposed "easy" solution of buying replacement power from the short-term market trivializes the problem. The short-term wholesale power market this summer is causing major problems and severe economic impacts in San Diego and other areas across the WSCC. Industries are shutting down in California and the Northwest because of the short-term market prices.

6 | IV. Sec 3.10.2.3.1.2 – cites the impact on the basis of an average of the study years. This is a gross oversimplification that minimizes the real financial impacts to power customers.

7 | Overall the DEIS seems to be deliberately minimizing the impacts of power by using annual averages and measuring impacts on a regional basis. It does not deal with the direct financial impacts to power contractors. These contractors in the Upper Colorado River Basin Project are repaying 100% of the federal investment in power features and over 95% of the investment in irrigation projects, and are funding nearly all of the subsequent environmental studies and mitigation projects. Surely, the impacts of the surplus criteria on this important part of the equation deserve full analysis and discussion in the EIS process. The DEIS is significantly incomplete without these analyses. CREDA will be glad to assist in any way possible to achieve this goal.

I may be reached at (480) 557-0987 or email creda@uswest.net.

Sincerely.

Leslie James
Executive Director

Cc: CREDA Board

000907SurpCritEIS

5: Please see response to Comment 16-2.

6: Please see response to Comment 16-2.

7: Please see response to Comment 16-2.

COLORADO RIVER WATER CONSERVATION DISTRICT

Protecting Western Colorado Water Since 1937

SEP 11 2000

September 8, 2000

SENT VIA FACSIMILE & U. S. Mail

BCOO1800
4600

Ms. Jayne Harkins
Attention BCOO-4600
U. S. Bureau of Reclamation
P. O. Box 61470
Boulder City, NV 89006-1470

Dear Ms. Harkins:

The Colorado River Water Conservation District ("CRWCD") thanks you for the opportunity to review and comment on the Bureau of Reclamation's July 2000 "Colorado River Interim Surplus Criteria Draft Environmental Impact Statement" ("DEIS"). The CRWCD is an agency of Western Colorado with a mission to promote the protection, conservation and development of Colorado's water resources in order to secure the greatest utilization of those resources for the benefit of present and future generations. The CRWCD has reviewed the DEIS and provides the following comments.

1 The CRWCD strongly supports the Interim Surplus Criteria developed by the seven Colorado River basin states and noticed in the Federal Register of August 8, 2000 as Supplemental Information to the DEIS. These criteria are a modification of the six state proposal described in the DEIS. Based on our analysis of the seven state proposal, we believe that proposal is superior to the six state proposal in the DEIS because there is less impact to reservoir storage, yet it still provides the water supplies sought. The interim criteria proposed by the seven basin states were developed using a 70R strategy, which is and has been the standard Colorado River reservoir operating strategy since the mid 1990s with one exception. While the 75R strategy has been reviewed on occasion as part of the annual operating plan development, it has never been the standard and we object to the DEIS suggesting that it is or has been the standard.

2

3 cont'd below The seven state interim criteria were also developed using the Upper Colorado River Basin depletion schedule adopted by the Upper Colorado River Commission in December 1999. The December 1999 depletion schedule shows that depletions are occurring slightly more rapidly than in the Upper Colorado River Basin depletion schedule used in the DEIS. However, the most important point to make is that, while these differences resulted in modifications to the six state

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P.O. BOX 1120/GLENWOOD SPRINGS, COLORADO 81602
(970) 945-8522 • FAX (970) 945-8799 • www.crwcd.gov

1: The preferred alternative in this FEIS is derived from the Seven States proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need for the proposed action, Reclamation policy and operational procedures.

2: The baseline has been changed to a 70R strategy for the FEIS.

3: The preferred alternative in this FEIS is derived from the Draft Seven States Proposal. The Upper Basin depletion schedule prepared in December 1999 was used to model the operation of the baseline and all the alternatives in this FEIS. The baseline has also been changed to the 70R operating strategy.

3 cont'd

proposal discussed in the DEIS, those differences and the impacts are within the range of alternatives and impacts analyzed in the DEIS. Because of its knowledge of the development of the DEIS supplemental information, the CRWCD is comfortable that the seven state proposal in the superior alternative and would likely strongly oppose the adoption of any interim surplus criteria that would change the standard or "no action alternative" in any other way

4

Furthermore, the CRWCD, in its review of the DEIS, finds that there are a number of views expressed in the DEIS concerning the "law of the river" with which it disagrees or does not wholly concur. However, these differences do not significantly impact the results of the DEIS and, thus, the CRWCD does not see any merit in debating them in the DEIS process. However, the CRWCD wants it clearly understood by all parties that it is not, in any way, changing long standing positions on Colorado River issues as a result of the way they may be stated in the DEIS. Rather, we would strongly encourage the Bureau of Reclamation to include the usual disclaimer it uses to address the differences that exist with respect to the "law of the river."

5

In particular, in Section 1.4.2 of the Glen Canyon Dam Operations, the discussion of Glen Canyon operations is not precise. The Colorado River Compact requires the Upper Division states to not cause the flow at Lee Ferry to be depleted below an aggregate of 75 MAF (plus ½ of the Mexican Treaty Deficiency, if any) for any period of ten consecutive years. The Upper Division states have never agreed with the 8.23 MAF minimum objective release identified in the Long Rang Operating Criteria. We would encourage that language be added to this section and others to fairly reflect what the compact requires.

In conclusion, even though we disagree with the way in which the law of the river is characterized in a number of places in the DEIS, we believe the DEIS and the supplemental information fairly portray the potential impacts of the possible actions and recommend that the Secretary adopt and implement the Seven Basin States Interim Surplus Guidelines. Thank you for considering the CRWCD's comments on this very important matter.

Sincerely,

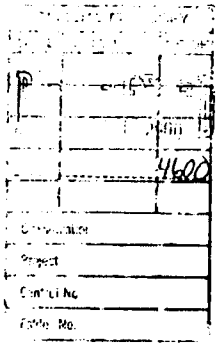
R. Eric Kuhn
General Manager

4: Comment noted.

5: Glen Canyon Dam is operated according to the LROC as discussed in Section 1.4.2. Section 1.3.3 discusses the LROC and the process for review and modification of the LROC. This EIS does not address disparities between the LROC and the Colorado River Compact. Concerns over the relationship between the Colorado River Compact and the LROC should be addressed though the LROC review process.

Cottonwood Creek Consolidated Irrigation Company

August 30, 2000



Jayne Harkins
Attention: BC00-460
PO Box 61470
Boulder City, Nevada 89006

Dear Ms. Harkins:

1 We have reviewed the Colorado River Interim Surplus Guidelines prepared as the "Seven Basin States Consensus Proposal." We concur with the method that has been negotiated between the basin states and urge that the Secretary of Interior adopt this plan, as written, as the preferred alternative.

1: The preferred alternative in this FEIS is derived from the Seven States Proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with Reclamation policy and operational procedures.

Sincerely,

Craig B. Johansen, President
Cottonwood Creek Consolidated Irrigation Co.

cc: Larry Anderson, Director
Division of Water Resources

P.O. Box 678 • Orangeville, Utah 84537

EMERY WATER CONSERVANCY DISTRICT

P.O. Box 998
Castle Dale, Utah 84513

Telephone (801) 381-2311

September 11, 2000

BCOOCR00
4600

Jayne Harkins
Attention:BC00-460
PO Box 61470
Boulder City, Nevada 89006

Dear Ms. Harkins:

1 We have reviewed the Colorado River Interim Surplus Guidelines prepared as the "Seven Basin States Consensus Proposal." We concur with the method that has been negotiated between the basin states and urge that the Secretary of the Interior adopt this plan, as written in the Federal Register / Vol. 65, No. 153 / Tuesday, August 8, 2000, as the preferred alternative.

1: See response to Comment 13-19.

Sincerely,

Eugene Johansen, President
Emery Water Conservancy District

cc: Larry Anderson, Director
Division of Water Resources

OPERATING COMMITTEE

Gary Wilson President
Paul Morris Vice President

Neal Dalton
Ned Dalton
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John Keys
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Dale Pierson Manager/Operator
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Phone: (435) 259-8121

GRAND WATER & SEWER

SERVICE AGENCY

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To: **Ms. Jayne Harkins**
Attention BC00-4600
From: Gary Wilson, President
Subj: Comment on DEIS, Colorado River Interim Surplus Criteria

1 Grand Water & Sewer Service Agency would like to voice support of the "Seven State Proposal" for Interim Surplus Guidelines on the Colorado River. This proposal seems the most sensible to assure that each State in the Colorado River Compact will eventually receive its allotted share of Colorado River water. The proposal accomplishes this in a manner which places less burden on those states currently using in excess of their allotted share and at little or no risk to upper basin states.

SEP 1[illegible]

BC00[illegible]
4600

1: See response to Comment 13-19.

IMPERIAL IRRIGATION DISTRICT
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RPM

SEP 11 2000

September 8, 2000

BCEO/LC00
4600

FAXED & MAILED
Robert W. Johnson
Regional Director
Lower Colorado Region
Attn: Jayne Harkins (LC-4600)
Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

Dear Mr. Johnson:

Subject: **Comments on Draft Environmental Impact Statement, *Colorado River Interim Surplus Criteria***

Imperial Irrigation District (IID) has reviewed and provides the following comments on the United States Bureau of Reclamation's (Reclamation) Draft Environmental Impact Statement (DEIS) regarding Colorado River Interim Surplus Criteria.

1 The DEIS has analyzed the following alternatives: no action alternative, Flood Control alternative, Six States alternative, California alternative, and Shortage Protection alternative. The Final Environmental Impact Statement (FEIS) should analyze *Interim Surplus Criteria Guidelines* ("Guidelines") developed by the Colorado River Basin states, as published by Reclamation in Federal Register/Vol 65, No. 153/August 8, 2000. IID has participated in the development of the Guidelines and supports the interim surplus criteria proposed therein.

2 From a general perspective, IID offers the following comments on the draft EIS. First, in order to maintain the public record, IID would like to remind Reclamation that compliance with NEPA in this situation is unnecessary. This issue was thoroughly addressed in comments from a variety of the basin states when Reclamation first announced its intention to undertake a NEPA compliance process for the interim criteria. As explained at that time, this interim criteria is well within the Secretary's existing authority to adjust operations at Hoover Dam within the terms of the Long Range Operating Criteria. Accordingly, there is no new "action" here upon which to base the need for NEPA compliance. Engaging in this sort of gratuitous NEPA compliance process is not authorized by NEPA, and therefore Reclamation's decision to undertake NEPA compliance in this situation only serves to confuse and mislead the public, and will also serve to mislead a court should this matter ever become involved in litigation.

3 Second, also for the record, IID objects to the decision of Reclamation to extend NEPA analysis into the country of Mexico (see sections 3.2 and 3.16). Although Reclamation relies on an old Executive Order and CEQ guidelines for this action, those authorities predate more recent

1: The preferred alternative in this FEIS is derived from the Seven States Proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need for the proposed action, Reclamation policy and operational procedures.

2: See response to Comment 43-2.

3: The applicable guidance appears to be contrary to the comment. EO 12114, Environmental Effects Abroad of Major Federal Actions, 44 FR 1957, 1979 WL 25866 (Pres.) requires that Federal agencies "... consider the significant effects of their actions on the environment outside the U.S., its territories and possessions...." The more recent CEQ guidance for transboundary impacts, dated July 1,1997, appears consistent with the approach in the Executive Order. See response to Comment 22-5.

cont'd

judicial decisions on this issue, and the cited authorities do not take into account the Supreme Court-imposed presumption against the extraterritorial application of federal domestic laws. Furthermore, Reclamation's extension of the NEPA analysis into Mexico ignores the dominant role of the 1944 Treaty between the United States and Mexico governing uses from the Colorado River. Both the Executive Order and the CEQ guidelines recognize that a controlling treaty may obviate the need for such NEPA compliance. Again, this sort of action only serves to mislead the public, and in this case, the citizens of Mexico as well.

4

Third, although the draft EIS appears to be silent on the matter, IID is concerned that the draft EIS presents a platform for Reclamation to engage in formal consultation under the Endangered Species Act (ESA) in relation to listed species located in Mexico. Because of other documents previously submitted to Reclamation, Reclamation is fully aware of the arguments posed by IID and the other California Colorado River using entities as to why the ESA does not apply in any way to listed species in Mexico. Fundamentally, IID's position rests on the wording of the existing ESA regulations, which are domestically oriented, and also on the Supreme Court-imposed presumption against the extraterritorial application of domestic laws. Since Reclamation has not indicated its intention to engage in formal or informal consultation under the ESA, IID urges Reclamation to maintain that position in future stages of this NEPA compliance process.

5

Fourth, IID notes that in section 2.2.3 of the draft EIS Reclamation explains why the proposal submitted by the Pacific Institute and others is not analyzed in this draft EIS. IID agrees with the rational advanced by Reclamation to support that decision. The recommendations made in the Pacific Institute proposal are expressly contrary to the terms of the 1944 Treaty with Mexico. Any deviation from that treaty, either for water quantity or water quality purposes, must be addressed through the authority of the Secretary of State, the President, and the Congress to control foreign affairs. There should be no attempt to analyze or effectuate such proposed action through the authority of the Department of the Interior or through application of the ESA or NEPA.

6

Regarding the technical analysis in general, IID agrees with the framework and the approach for the DEIS. The definition and estimation of the impacts as "incremental differences in probabilities (or projected circumstances associated with a given probability) between baseline conditions and the alternatives" (DEIS, p. 3-14) is appropriate. The application of the hydrologic modeling to quantify the impacts in this manner is also appropriate. However, we have the following concerns:

7

The DEIS makes an assumption that the conditions modeled for baseline conditions and Flood Control alternative do not include the implementation of the California 4.4 Plan and water transfers described in *Key Terms for Quantification Settlement Among the State of California, IID, CVWD, and MWD*, dated October 15, 1999 ("Key Terms"). IID recognizes that the adoption of interim surplus criteria acceptable to MWD is one of Conditions Precedent in the Key Terms. However, the purpose of this DEIS is to evaluate the impacts of the interim surplus criteria, not the impacts of the water transfers described in the Key Terms. By modeling the baseline demands without the water transfers and the demands for the action alternatives with the water transfers, the DEIS has effectively evaluated the combined impacts of the interim surplus criteria and the water transfers. IID believes that the impacts of the interim surplus criteria should be isolated by using the same demands for the baseline conditions and for the action alternatives. The demands should include both the interim surplus criteria and water

4: Comment noted.

5: The Pacific Institute Proposal was considered but not analyzed as an alterantive in this FEIS. See responses to Comment 11-2 and 11-6.

6: Comment noted.

7: All alternatives analyzed in the FEIS assume implementation of the California Colorado River Water Use Plan and intrastate water transfers. See response to Comment 37-11 for more detail.

transfers, and should apply to both baseline and action alternatives. The impacts of each of the water transfers described in the Key Terms will be evaluated in separate environmental reviews, as appropriate.

cont'd

In summary, IID believes that the impacts of the Interim Surplus Criteria should be analyzed using the same demands for both baseline conditions and the action alternatives. This will help ensure that the impacts of the proposed interim surplus criteria are evaluated correctly. In addition, IID urges Reclamation to seriously consider IID's comments as to the applicability of both NEPA and the ESA to this process as it relates to resources or species in Mexico.

IID appreciates the opportunity to comment on the DEIS.

Sincerely,

JOHN R. ECKHARDT, Ph.D., P.E.
Assistant to the General Manager

JRE/lh
U:\ISC/DEIS-Comments.doc

Copy: Gerald Zimmerman, CRB
Dennis Underwood, MWD
Tom Levy, CVWD
Maureen Stapleton, SDCWA

IRRIGATION & ELECTRICAL DISTRICTS ASSOCIATION OF ARIZONA

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CLYDE GOULD
SECRETARY-TREASURER

ROBERT S. LYNCH
ASSISTANT SECRETARY/TREASURER

TELECOPIED AND MAILED
(Fax no.: 702-293-8042)

September 8, 2000

BC00-4600

Ms. Jayne Harkins, BC00-4600
Lower Colorado Regional Office
Bureau of Reclamation
P.O. Box 61470
Boulder City, Nevada 89006-1470

Re: Comments on the Draft Environmental Impact Statement for Lower Colorado River Interim Surplus Criteria (ISC), 65 Fed.Reg. 42026 (July 7, 2000) and 65 Fed.Reg. 48531 (August 8, 2000)

Dear Ms. Harkins:

These comments are intended to supplement my oral comments given at the Public Hearing on this subject on August 24, 2000 in Phoenix, Arizona, which oral comments are incorporated by reference. We also endorse and support the comments that have been filed by the Colorado River Energy Distributors' Association and the oral comments and written comments provided by the Arizona Power Authority Commission, the Arizona Department of Water Resources and the Central Arizona Water Conservation District.

These comments will deal with four subjects; the comment period and late comments, the preferred alternative, power impacts, and the extraterritorial application of the National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA).

COMMENT PERIOD

1 At the hearing in Phoenix, there was some discussion about the need for acquisition of additional information and additional comments. After the original notice of availability and the availability of the Draft Environmental Impact Statement (DEIS), the seven Basin states proposed an alternative not included in the DEIS. That alternative was published in the Federal Register on August 8, 2000 and has since undergone some additional modification. The question arose whether the Bureau of Reclamation (Reclamation) could accept additional comments and information after the close of the comment period on September 8, 2000. The simple answer to that question is yes. Commenting is covered by the Council on Environmental Quality (CEQ) regulations

SERVING ARIZONA SINCE 1962

1: Consultation and coordination is an ongoing process during the preparation of an EIS. Reclamation is aware of the regulations and guidance you cite, and makes every reasonable effort to include and respond to late comments from regulatory agencies. To the extent possible, Reclamation also includes other substantive comments received after the close of the public comment period for the DEIS.

cont'd

at 40 C.F.R., Part 1503. While the regulations in that part do not specifically address the question of comments received after the expiration of a comment period set under 40 C.F.R. § 1501.8, the regulations do anticipate that all substantive comments received will be attached to the Final Environmental Impact Statement (FEIS) and those meriting response will be included in the responses in the FEIS. The clear implication is that substance will control over form and that information received prior to the completion of the FEIS should be included in the process. Additionally, the Department of Interior Manual, at 516 DM 4.17, says

> "B. When other commenters are late, their comments should be included in the final EIS to the extent practicable."

And the Bureau of Reclamation Handbook, paragraph 8.15.2.4 contains a similar requirement.

Thus, additional information and comments can be obtained by Reclamation for the FEIS. It would be important to have that material in writing so it can be included with the FEIS, as required by 40 C.F.R. § 1503.4(b).

PREFERRED ALTERNATIVE

2

In the FEIS, Reclamation must designate a preferred alternative. 40 C.F.R. § 1502.14(e). That should be the seven-state alternative articulated in the August 8, 2000 Federal Register notice as further modified and discussed at the Phoenix hearing and, we presume, the other hearings. NEPA is a planning process and the EIS a planning analysis document focused on environmental consequences to a proposed action and reasonable alternatives. As such, it is perfectly positioned to make the sort of adjustments necessary that are called for here in order for the seven-state alternative to be the preferred alternative in the final EIS. See Answer to Question 29b., 40 Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations. Indeed, the dialogue necessary to refine the seven-state alternative as the preferred alternative enhances the quality of the NEPA process by clarifying the proposed action and allowing the environmental analysis of it to be more discrete and comprehensive.

2: The preferred alternative in this FEIS is derived from the Seven State Proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need for the proposed action, Reclamation policy and operational procedures.

POWER IMPACTS

3

Without belaboring comments you have already received and other comments you are receiving on this subject, from the Arizona Power Authority, the Colorado River Energy Distributors' Association and others, let me focus on the cure to the

3: Comment noted. Reclamation believes that the level of analysis for energy resources presented in the EIS appropriately identifies the potential effects of interim surplus criteria compared with baseline conditions.

cont'd

inadequacies of Section 3.10 on energy resources in Chapter 3 on Affected Environment and Environmental Consequences. You must agree that the oversimplified discussion in this section does not pass the pink-face test. This region of the country is no longer capacity rich nor is it in a surplus condition with regard to energy, especially in summer months. If such surpluses existed, the 13 merchant plants being built in Arizona, or at least planned, would not even be being discussed. Nor would power bills have tripled this summer in San Diego. To correct the deficiencies in impact analysis on customers of the affected hydropower resources and the total lack of analysis of reliability impacts, I suggested to you at the hearing and I will repeat the suggestion that you reach out to the Western Systems Coordinating Council, the Colorado River Energy Distributors' Association, the Arizona Power Authority and other power customer organizations, including ours, for information on impacts that can be incorporated in the final EIS. Others have already volunteered to assist and we do likewise. These impacts must be quantified because the EIS is totally devoid, as are all of the action proposals, of any discussion of compensating those who will lose benefits from lost hydropower production and are not in a position to enjoy any of the benefits of water supply in return during times of shortage. One cannot ignore the class of beneficiaries of the hydropower projects involved that have this single source of benefit from these multi-purpose hydropower projects, i.e., hydropower.

EXTRATERRITORIAL APPLICATION OF NEPA

I. It is inappropriate and unnecessary to include an analysis of impacts to the Mexican Delta in the ISC EIS.

A. There is a strong presumption against extraterritorial application of statutes.

4

"It is a longstanding principle of American law 'that legislation of Congress, unless a contrary intent appears, is meant to apply only within the territorial jurisdiction of the United States.' ... This 'canon of construction ... is a valid approach whereby unexpressed congressional intent may be ascertained.'" EEOC v. Arabian American Oil Co. ("Aramco"), 499 U.S. 244, 248 (1991) (quoting Foley Bros. v. Filardo, 336 U.S. 281, 285 (1949)).

"The general and almost universal rule is that the character of an act as lawful or unlawful must be determined wholly by the law of the country where the act is done... [This] would lead, in case of doubt, to a construction of any statute as intended to be confined in its operation and effect to the territorial limits over which the lawmaker has general and legitimate power."

4: The applicable guidance appears to be contrary to your comment. EO 12114, Environmental Effects Abroad of Major Federal Actions, 44 FR 1957, 1979 WL 25866 (Pres.) requires that Federal agencies "... consider the significant effects of their actions on the environment outside the U.S., its territories and possessions,..." Recent CEQ guidance for transboundary impacts, dated July 1,1997, appears consistent with the approach in the Executive Order.

cont'd

American Banana Co. v. United Fruit Co., 213 U.S. 347, 356, 357 (1909).

The presumption against extraterritorial application is expressed most clearly by the holding in Aramco, 499 U.S. 244 (1991). The Aramco Court applied the presumption to Title VII, concluding that the statute did not apply to employment discrimination by an American company against an American citizen that occurred beyond U.S. boundaries. Despite the argued evidence that Congress intended Title VII to apply extraterritorially (i.e., Congress' specific reference which exempted employers "with respect to the employment of aliens outside any State" 42 U.S.C. 2000e-1 (1988)), Chief Justice Rehnquist held that only a "clear statement" in the language of the statute would be sufficient to overcome the presumption. 499 U.S. at 258.

Congress subsequently amended Title VII to overcome the result in Aramco. See 42 U.S.C. 2000e(f) (1994); id. 2000e-1(c); and id. 2000e-1(b). However, this does nothing to the presumption as declared by Chief Justice Rehnquist. In fact, Congress' action in this instance highlights three of the six (see II.F., post) sound policy reasons for the presumption. They are (1) the presumption provides legislators with a clear rule which allows them to predict the application of their statutes; (2) "the commonsense notion that Congress generally legislates with domestic concerns in mind," (Smith v. United States, 507 U.S. 197, 204 (1993)); and (3) separation-of-powers concerns (i.e., determination of how to apply federal legislation is beyond the constitutional scope of the judicial branch).

Furthermore, the Supreme Court has recently applied the presumption against extraterritoriality not only to Title VII, but also to the Foreign Sovereign Immunities Act, the Federal Tort Claims Act, the Immigration and Nationality Act, and, in a concurring opinion, Justice Stevens applied it to the Endangered Species Act. See Argentine Republic v. Amerada Hess Shipping Corp., 488 U.S. 428, 440-41 (1989); Smith v. United States, 507 U.S. 197, 203-04 (1993); Sale v. Haitian Centers Council, Inc., 509 U.S. 155, 173-74 (1993); and Lujan v. Defenders of Wildlife, 504 U.S. 555, 585-89 (1992), respectively. In Smith, Chief Justice Rehnquist applied the presumption again noting that it requires "clear evidence of congressional intent." 507 U.S. at 204. Similarly, in Sale, the Court held that Acts of Congress "do not have extraterritorial application unless such an intent is clearly manifested." 509 U.S. at 188. Therefore, in order to rebut the presumption against extraterritoriality, the statute must reflect the clear intent of Congress to do so. Language subject to varied interpretation is not sufficient. Aramco, 499 U.S. 244, 266-78 (1991).

B. NEPA does not cover actions taken in other sovereign nations.

The issue of whether NEPA may be applied extraterritorially has yet to come before the Supreme Court of the United States. However, as noted above, there is a strong presumption against extraterritorial application of statutes, which includes NEPA, unless Congress clearly expresses otherwise. Aramco, 499 U.S. 244, 248 (1991). A review of the lower courts' case law supports applying this presumption to NEPA.

Three cases are most instructive in concluding that NEPA should have no extraterritorial application here. The first is Natural Resources Defense Council, Inc. v. Nuclear Regulatory Comm'n ("NRDC"), 208 U.S. App. D.C. 216, 647 F.2d 1345 (D.C. Cir. 1981). NRDC concerned nuclear shipments to the Phillipines, to which the court held that "NEPA does not apply" extraterritorially. Id. at 1366. While limited to nuclear export licensing decisions, the court explained "NEPA's legislative history illuminates nothing in regard to extraterritorial application." Thus, in the absence of any "clear evidence of congressional intent" the presumption against extraterritoriality will prevail. Smith v. United States, 507 U.S. 197, 204 (1993).

5

The second case regarding the extraterritoriality of NEPA is Environmental Defense Fund v. Massey ("EDF"), 300 U.S. App. D.C. 65, 986 F.2d 528 (D.C. Cir. 1993). The court in EDF held that the presumption did not apply, and consequently that NEPA did apply to the National Science Foundation's attempt to incinerate food wastes in Antarctica. However, the court relied heavily, if not entirely, upon Antarctica's sovereignless status and the potential "clashes between our laws and those of other nations." Id. at 532.

Most importantly, the court limited its holding to the specific facts of that case and did "not decide today how NEPA might apply to actions in a case involving an actual foreign sovereign..." Id. at 837. And EDF also preceded Chief Justice Rehnquist's reaffirmation in Smith, 507 U.S. at 204: "The presumption is rooted in a number of considerations, not the least of which is the commonsense notion that Congress generally legislates with domestic concerns in mind." Thus, the EDF holding is limited to its unique facts.

The third case that addresses extraterritorial application of NEPA also addresses the holding in EDF. In NEPA Coalition of Japan v. Aspin ("Aspin"), the court distinguished EDF, stating, "The [EDF] court expressly limited its ruling by refusing to decide whether NEPA might apply to actions involving an internationally recognized sovereign power." 837 F.Supp. 466, 467 (1993) (citing EDF, 986 F.2d at 537). The Aspin case asks whether NEPA requires the Department of Defense to prepare an EIS

5: NEPA does cover actions taken in the United States. The Executive Order 12114 is used to provide the decisionmaker complete information regarding the impact of the decision (See Section 1-1 of the EO in Attachment B). Additional guidelines on the applicability of NEPA to transboundary impacts that may occur as a result of proposed federal actions in the United States are contained in a memorandum prepared by the Executive Office of the President, Council on Environmental Quality. A copy of this document (CEQ Guidance on NEPA Analyses for Transboundary Impacts - July 1, 1997) is also provided in Attachment B.

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for military installations in Japan. The court held that "the presumption against extraterritoriality not only is applicable, but particularly applies in this case because there are clear foreign policy and treaty concerns involving a security relationship between the United States and a sovereign power." 837 F. Supp. at 468. A similar result not involving a treaty was reached in Greenpeace, USA v. Stone, 748 F.Supp. 749 (D. Hawaii 1990), appeal dismissed as moot, 924 F.2d 175 (9th Cir. 1991).

Therefore, because of the above-cited case law, NEPA remains subject to the presumption against extraterritoriality in other sovereign nations.

C. The Treaty implications here require restraint.

1. Water deliveries are not the only Treaty matters that can be impacted.

6

Treaty relations and relationships will be impacted even if water deliveries are not.

"[The] presumption [against extraterritorial application] has special force when we are construing treaty and statutory provisions that may involve foreign and military affairs for which the President has unique responsibility." Sale v. Haitian Centers Council, Inc., 509 U.S. 155, 188 (1993) (quoting United States v. Curtiss-Wright Export Corp., 299 U.S. 304 (1936)).

The DEIS states that treaty water deliveries to Mexico (1.5 MAF/year) will not be affected by the implementation of the ISC. Chapter 3, Subsection 3.16.3. However, availability of treaty surplus water is specifically excluded from the DEIS. Chapter 1, Subsection 1.1.4. That, in and of itself, impacts relationships governed by the 1944 U.S./Mexico Treaty and Minute 242. It is literally impossible to assess impacts in Mexico, presumably in the Mexican Delta, without affecting relationships in Mexico, including relationships with the Mexican government. What sort of separate consultations with the Mexican government through the International Boundary Water Commission (IBWC) result from IBWC cooperating agency status? Conduct of studies? Peer review? Where does it stop?

2. If there are no treaty water delivery impacts, then there is even less reason to invade Mexican sovereignty, especially for blatantly speculative analysis purposes.

7

Since water is the sine qua non for Mexican Delta impacts, if no changes in treaty water deliveries will result, an impact analysis is irrelevant, worthless, and a waste of scarce federal funds. Continued compliance with the treaty is the only relevant subject. Since that is a given, nothing else remains to be done.

6: Reclamation agrees. See Chapter 5 for further information regarding consultation with Mexico.

7: See response to Comments 22-4 and 22-5..

cont'd

The DEIS notes that its analysis is keyed to the availability of "excess" water. However, the DEIS acknowledges that Mexico has no obligation to allow such water to flow through the Delta. Subsection 3.16.2. Indeed, the DEIS assumes consumptive use of such water. Ibid. Then the DEIS blithely goes on to model and discuss excess flows that are presumed to be targets of consumptive use demands as if they will flow through the Delta. This is sheer speculation and not required under NEPA. Environmental Defense Fund, Inc. v. Hoffman, 566 F.2d 1060 (8th Cir. 1977); Life of the Land v. Brinegar, 485 F.2d 460 (9th Cir. 1973); Forty Most Asked Questions, No. 18.

8

D. Executive Order 12114 does not support extraterritorial NEPA application.

E.O. 12114 is cited as support for extraterritorial NEPA analysis. It cannot support studying the impacts of the ISC in Mexico for three reasons. First, it predates all of the relevant case law which contradict its basic premise, including NRDC and Aspin, as well as Smith, Sale, etc. Second, it exempts actions not having significant effect outside the United States. Third, it exempts "actions taken...pursuant to the direction of [a] Cabinet officer when the national...interest is involved...", i.e., when a treaty is implicated.

9

E. The memorandum entitled "Council on Environmental Quality Guidance on NEPA Analyses for Transboundary Impacts" does not justify extraterritorial NEPA application where, as here, a treaty is clearly implicated.

The CEQ Memorandum itself cautions that the scoping process should eliminate transboundary analyses if the information is not needed. Thus, here it would exclude Section 3.16 itself. But to the extent Reclamation relies on this document, we hasten to point out its two fatal flaws. First, it totally disregards the presumption against extraterritorial application. Second, it totally avoids discussion of applications of NEPA where treaty relationships are involved. Since the document recognizes that it has no force beyond existing case law, it provides no support here in the face of NRDC and Aspin.

EXTRATERRITORIAL APPLICATION OF ESA

II. ISC decisions cannot be based on analysis of ESA-related impacts, if any, to the Mexican Delta resulting from river operations conducted pursuant to the ISC.

8: See response to Comment 22- 4.

9: Reclamation notes that the cited CEQ guidance memorandum does not provide exemptions based on instances where treaties exist.

A. Using the EIS to examine extraterritorial impacts to endangered and threatened species is extraterritorial application of the ESA.

10 By definition, any analysis which accounts for potential impacts beyond our borders necessarily is applying the Endangered Species Act extraterritorially. See: Lujan v. Defenders of Wildlife, 504 U.S. 555, 585-89 (1992) - Stevens, J., concurring in the judgment. Using a Mexican Delta endangered and threatened species analysis as part of the EIS extends the force of the ESA across the Southern International Border with Mexico, when that analysis is presented to the decision-maker, here the Secretary of the Interior.

11 B. There is a strong presumption against extraterritorial application of statutes absent clearly expressed Congressional intent. [See I.A., supra.]

C. Section 7(a)(2) of the Endangered Species Act lacks any Congressional intent to apply these provisions extraterritorially.

.. Section 7(a)(2)'s silence on extraterritorial application requires a contrary conclusion.

In his concurring opinion, Justice Stevens addressed this precise point. He stated, "[T]he absence of any explicit statement that the consultation requirement is applicable to agency actions in foreign countries suggests that Congress did not intend that 7(a)(2) apply extraterritorially." Lujan v. 12 Defenders of Wildlife, 504 U.S. 555, 588 (1992). The only geographic reference in Section 7(a)(2) is "affected States" as it applies to critical habitat. Clearly, Section 7(a)(2) lacks any explicit reference to application in foreign countries and thus, Congress did not intend that it apply extraterritorially.

Moreover, in reviewing Title VII, the Court held that vague references such as "outside any State" were not sufficient to apply that statute extraterritorially. Aramco, 499 U.S. at 258. Thus, if written, albeit vague, references were not enough to warrant an expression of Congressional intent, surely silence on extraterritorial application must also fail.

2. Section 7's silence reflects Congressional intent.

13 As noted by Justice Stevens concurring opinion in Lujan v. Defenders of Wildlife, Sections 8 and 9 of the Endangered Species Act specifically address application of these sections abroad. 504 U.S. at 588. Section 7 does not. Thus, Congress clearly knew how to draft extraterritorial application of ESA provisions,

10: ESA consultation on this domestic action was completed between Reclamation and the Service and NMFS as directed by the Department of Interior Solicitor and the Commissioner of Reclamation. There is no final resolution of the legal question of application of the ESA to extraterritorial impacts. Reclamation and the Department recognize that this consultation may provide more information than the law requires. However, doing so provides the Secretary a better basis for his determinations and a better understanding of potential impacts.

11: Comment noted.

12: Comment noted.

13: Comment noted.

cont'd | yet chose not to in Section 7. As reasoned above, this absence of Congressional intent necessarily must yield to the presumption against extraterritorial application of statutes.

D. Fish and Wildlife Service's own regulations prevent extraterritorial application.

1. The 1986 changes in the regulations specifically limited application of ESA.

The scope of the ESA is expressed, in pertinent part, as follows:

"Section 7(a)(2) of the [ESA] requires every Federal agency, in consultation with and with the assistance of the Secretary, to insure that any action it authorizes, funds or carries out, in the United States or upon the high seas, is not likely to jeopardize the continued existence of any listed species." (Emphasis added.) 50 C.F.R. § 402.01.

14 | The Secretary of the Interior and the Secretary of Commerce have consistently taken the position that they need not designate critical habitat in foreign countries. See 42 Fed. Reg. 4869 (1977)(initial regulations of the Fish and Wildlife Service ("F&WS") and the National Marine Fisheries Service ("NMFS")).

Conversely, in 1978 the F&WS and NMFS promulgated a joint regulation stating that the obligations imposed under 7(a)(2) extend abroad. However, almost immediately the Department of the Interior began to reexamine its position. Consequently, in 1983 a revised joint regulation, reinterpreting 7(a)(2) to require consultation only for actions taken in the United States or on the high seas, was proposed (48 Fed.Reg. 29990) and in 1986, promulgated (51 Fed.Reg. 19926; 50 C.F.R. 402.01 (1991)).

That this restriction applies to effects as well as actions must follow for it would prove "illogical to conclude that Congress required federal agencies to avoid jeopardy to endangered species abroad, but not destruction of critical habitat abroad." Lujan, 504 U.S. 555, 588.

This analysis is confirmed by the concomitant restrictive language in the definition of "action", in pertinent part, as:

"All activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas." (Emphasis added.) 50 C.F.R. § 402.02.

14: Comment noted.

15 | 2. Agency construction of the Act was clearly expressed in the 1986 rulemaking.

15: Comment noted.

One need look no further than the F&WS explanation in its 1986 rulemaking for clear intent that the ESA's operative provisions are not to be applied extraterritorially.

cont'd

> "The 1978 rule extended the scope of section 7 beyond the territorial limits of the United States to the high seas and foreign countries. The proposed rule cut back the scope of section 7 to the United States, its territorial sea, and the outer continental shelf, because of the apparent domestic orientation of the consultation and exemption processes resulting from the Amendments, and because of the potential for interference with the sovereignty of foreign nations. Several commenters asserted that the rules should continue to have extraterritorial effect. The scope of these regulations has been enlarged to cover Federal actions on the high seas but has not been expanded to include foreign countries." 51 Fed.Reg. 19929-19930 (1986).

The F&WS has interpreted Congressional amendments to the ESA for over a decade as evincing an intent for domestic application. The F&WS is bound by its own longstanding administrative interpretation and so is Reclamation.

E. Using an analysis of extraterritorial impacts effectively applies § 7(a)(2) extraterritorially, which is unlawful.

16

Because Section 7(a)(2) does not demonstrate any, much less clear, Congressional intent concerning their foreign application, under the presumption against application of statutes, Section 7(a)(2) must be confined to application within the United States. Inserting the ESA analysis in the DEIS, Subsection 3.16.6, coupled with consultation with IBWC, Subsection 3.16.3, constitutes preparation of a de facto Biological Assessment under the ESA. Thus, this analysis of extraterritorial impacts is an impermissible application of the ESA.

16: Comment noted.

F. Sound public policy demands that ESA application remain focused on impacts in the United States where, as here, a treaty covers the area in question.

17

There are six oft-cited reasons for the presumption against extraterritorial application. (1) The presumption provides legislators with a clear background rule which allows them to predict the application of their statutes; (2) "the commonsense notion that Congress generally legislates with domestic concerns in mind" (Smith, 507 U.S. 197, 204 (1993)); (3) Separation-of-powers concerns (i.e., the determination of whether and how to apply federal legislation to conduct abroad raises difficult and sensitive policy questions that tend to fall outside both the

17: Comment noted. Reclamation acknowledges there are various sound public policy perspectives on this issue. Reclamation has appropriately focused on its ESA compliance within the United States.

cont'd

institutional competence and constitutional prerogatives of the judiciary); (4) international law limitations on extraterritoriality, which Congress should have been assumed to observe; (5) consistency with domestic conflict-of-laws rules; and (6) the need to protect against unintended clashes between our laws and those of other nations which could result in international discord. See, Dodge, "Understanding the Presumption Against Extraterritoriality," 16 Berk. J. Int'l Law 85 (1998).

1. Treaty relations and relationships will be impacted even if water deliveries are not. [See I.C.1., supra.]

2. Hydrologic impact would most likely result if extraterritorial impacts colored the decision.

It is difficult to imagine how a decision-maker, let alone the preparers of the EIS, will not be influenced by impact analysis in the Mexican Delta. Even if water deliveries are not impacted, some hydrologic, water quality or other changes will result from merely weighing the information. To think otherwise is to defy common sense. Treaty relations will be affected. Section 3.16 should be deleted from the FEIS.

Thank you for the opportunity to comment on this important proposal.

Sincerely,

Robert S. Lynch
Asst. Secretary/Treasurer

RSL:psr
cc: Hon. Jane Dee Hull, Governor of Arizona
Arizona Congressional Delegation
IEDA Board of Directors
John Leshy, Solicitor, Department of the Interior
Rita Pearson, Director, Arizona Department of Water Resources
Gerald Zimmerman, Executive Director, Colorado River Board of California
George M. Caan, Director, Colorado River Commission of Nevada
Wayne Cook, Executive Director, Upper Colorado River Commission

Harold Simpson, Colorado State Engineer
Larry Anderson, Director, Utah Division of Water Resources
Philip Mutz, New Mexico Interstate Stream Commission
John Shields, Wyoming State Engineer's Office
Douglas Miller, General Counsel, CAWCD
Douglas Fant, Counsel, APA
Leslie James, Executive Director, CREDA
Larry Dozier, Deputy General Manager, CAWCD

SEP. 8.2000 3:38PM MWD NO.236 P.2

MWD
METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

September 8, 2000

Mr. Robert W. Johnson
Regional Director
Lower Colorado Region
c/o Ms. Jayne Harkins, BC00-4600
U.S. Bureau of Reclamation
P.O. Box 61470
Boulder City, Nevada 89006-1470

VIA FACSIMILE

Dear Mr. Johnson:

Comments on Colorado River Interim Surplus Criteria Draft Environmental Impact Statement

The Metropolitan Water District of Southern California (Metropolitan) appreciates the opportunity provided by the U.S. Bureau of Reclamation (Reclamation) to comment on the Colorado River Interim Surplus Criteria Draft Environmental Impact Statement (DEIS). Metropolitan has reviewed the DEIS in conjunction with the information submitted on the DEIS which was published in the Federal Register on August 8, 2000 on pages 48531 to 48538 (information), and the August 14, 2000 memorandum making available Attachment I for the DEIS.

Metropolitan notes that Reclamation has made a preliminary review of information submitted on the DEIS, entitled, "Interim Surplus Guidelines—Working Draft", which is the product of significant effort on the part of the representatives of the Governors of the Colorado River Basin States and has made a preliminary determination that such criteria are within the range of alternatives and impacts analyzed in the DEIS. Metropolitan encourages Reclamation to complete the final evaluation of the information, and supports the presentation of the results of that final evaluation in the Final Environmental Impact Statement (FEIS). Metropolitan supports the designation of the "Interim Surplus Guidelines—Working Draft" as the preferred alternative in the FEIS. 1

One of the comments made at the August 24 public hearing in Phoenix, Arizona indicated that Reclamation had ample authority to participate in a dialogue on the "Interim Surplus Guidelines—Working Draft" during the remainder of the NEPA process. As a potentially affected public agency, Metropolitan requests the opportunity to be invited to participate in any such dialogue. 2

1: The preferred alternative in this FEIS is derived from the Seven States Proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with Reclamation policy and operational procedures.

2: Reclamation appreciates the willingness [illegible]e and local agency representatives to participate in a dialogue on the interim surpl[illegible]teria during the NEPA process. This has been of assistance in compiling water demand projections and other operational aspects for the analysis.

SEP. 8.2000 3:39PM MWD NO.236 P.3

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

Mr. Robert W. Johnson, Regional Director
Page 2
September 8, 2000

Enclosed for your consideration are additional comments on the DEIS. Should you have any questions on Metropolitan's comments, I may be reached at (213) 217-6588.

Very truly yours,

Dennis B. Underwood

Dennis B. Underwood
Senior Executive Assistant to the General Manager

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Enclosure

SEP. 8.2000 3:39PM MWD NO.236 P.4

Additional Comments on
Colorado River Interim Surplus Criteria Draft Environmental Impact Statement

The following comments are offered for consideration by the Bureau of Reclamation (Reclamation) for inclusion in the Final Environmental Impact Statement:

3 | 1. Insert the word "normal" before the word "apportionment" as California has not been diverting more than its normal and surplus apportionment combined. (Page 1-3, paragraph 4, line 1)

3: Comment noted, the change has been made.

4 | 2. Insert the phrase "beneficial consumptive use of" before the word "water" as Article III of the Colorado River Compact apportioned the beneficial consumptive use of water between the Upper and Lower basins. (Page 1-8, point 1, line 1)

4: The suggested edit was included in the FEIS.

5 | 3. Insert the phrase "authorized the Lower Division states to enter into an agreement apportioning the", and delete the word "apportioned" before the word "water" to more precisely state what was authorized by the Boulder Canyon Project Act. After the word "water" delete the phrase "among the Lower Division States". (Page 1-8, point 2, lines 2-3)

5: The suggested edit was included in the FEIS.

6 | 4. Insert the word "Protection" after the word "Floodway" to more precisely reference the short title of Public Law 99-450, the Colorado River Floodway Protection Act. (Page 1-20, paragraph 5, line 1) Insert the phrase "from below Davis Dam to the Southerly International Boundary between the United States and Mexico" following the word "greater" to specify the location of the floodway. (Page 1-20, paragraph 5, line 3)

6: Your comment is noted. This paragraph has been deleted. Section 3.6.4.1 has more information regarding Public Law 99-450.

7 | 5. Delete the sentence "The Colorado River Floodway Act requires that the minimum flood release from Hoover Dam can be no less than 40,000 cfs" as Metropolitan's review of Public Law 99-450 did not reveal this requirement. (Page 1-20, paragraph 5, lines 3-5)

7: Your comment is noted. This paragraph has been deleted.

8 | 6. Is the Lower Basin apportionment referenced, the Lower Basin normal apportionment or the Lower Basin normal and surplus apportionment? (Page 1-20, paragraph 1, line 5)

8: Reclamation assumes this comment is referring to page 1-22, paragraph 1, line 5 of the DEIS. The sentence has been changed.

9 | 7. It is stated that "Elevation 1083 feet msl is the minimum water level for power generation at the Hoover Powerplant based on its existing turbine configuration." (Page 3.3-10, Section 3.3.3.4, lines 6-8) In Reclamation, River Operations Team, Boulder City, Nevada's, "CRSSez Annual Colorado River System Simulation Model, Overview and Users Manual", Revised May 1998, it is stated that "If mavgelev is less than 1050 feet then Hoover energy is zero." where mavgelev is Mead average elevation for the year. (Page 13, paragraph 5, lines 8-9) In the Draft Environmental Impact Statement (DEIS), it is stated "The minimum water surface elevation for efficient power generation is 1083 feet." (Page 3.3-23, paragraph 1, lines 4-5) Please clarify whether the word

9: The fifth sentence of the first paragraph in Section 3.3.3.4 has been changed to read as follows: "Elevation 1083 feet msl is the minimum water level for effective power generation at the Hoover Powerplant based on its existing turbine configuration." A quantitative definition for "effective" as it is used in connection with power generation has been added to Section 3.10.2.1.

-1-

SEP. 8.2000 3:40PM MWD NO.236 P.5

cont'd "efficient" should be inserted before "generation" in the sentence quoted above which is on Page 3.3-10. Please provide a quantitative definition for "efficient" as it is used in connection with generation on pages 3.3-10, 3.3-23, and Figure 3.3-10.

10 8. Insert the phrase "the Yuma Project," before the phrase "the IID" as the All American Canal delivers water to the Yuma Project as well as IID and CVWD according to http://dataweb.usbr.gov/html/allamcanal.html#general. (Page 3.4-6, paragraph 4, line 8)

11 9. Revise the phrase "Since 1996" to "In 1996 and 1997"; and insert the phrase "normal apportionment" and delete the word "entitlement" before the phrase "due to determinations by the Secretary" to be more precise. Reclamation's annual report entitled, "Compilation of Records in Accordance With Article V of the Decree of the Supreme Court of the United States in Arizona v. California Dated March 9, 1964" indicates that California's net diversions of Colorado River water totaled about 100,000 to 200,000 acre-feet less in 1998 and 1999 than that indicated in the DRIS. (Page 3.4-7, paragraph 1, line 3)

12 10. Insert the word "normal" before the word "apportionment" to be more precise. (Page 3.4-7, paragraph 3, line 1).

13 11. Revise the word "entitlement" to the phrase "normal apportionment" to be more precise. (Page 3.4-7, paragraph 3, line 3).

14 12. The DEIS includes the phrase "for about 700,000 acre-feet of the approximate 2 million af of water that MWD currently delivers." (Page 3.4-7, paragraph 3, lines 6-7) In calendar year 2000 with the initial filling of Diamond Valley Lake, Metropolitan forecasts total deliveries of 2.7 million acre-feet to its service area, the Hayfield groundwater basin, and to Desert Water Agency and Coachella Valley Water District for recharge of the Upper Coachella groundwater basin under agreements with those two agencies, with 1.4 million acre-feet of the total being deliveries from the State Water Project. Over the calendar year period 1990-99, Metropolitan delivered between 1.5 and 2.6 million acre-feet.

15 13. Revise the word "legal" to the word "normal" to be more precise. (Page 3.4-8, paragraph 2, line 2).

16 14. Revise the number "5.3" to "5.2". (Page 3.4-8, paragraph 3, line 2) Reclamation's annual report entitled, "Compilation of Records in Accordance With Article V of the Decree of the Supreme Court of the United States in Arizona v. California Dated March 9, 1964" indicates that California's net diversions have not reached 5.3 million acre-feet in the last 10 years after accounting for unmeasured return flows.

17 15. Insert the phrase "those in place by" before the number "2015" (Page 3.5-7, paragraph 2, line 3) as the sixth paragraph on this page includes this language.

-2-

10: The suggested edit was made.

11: The last sentence of the fifth paragraph in Section 3.4.3.3 has been changed to read as follows - Since 1996, California has received as much as 800,000 af above its annual 4.4 maf normal apportionment due to determinations by the Secretary of surplus conditions on the Colorado River through the AOP process.

12: The suggested edit was made.

13: The suggested edit was made.

14: The last part of the last sentence of the seventh paragraph in Section 3.4.3.3 has been revised to reflect the information provided.

15: The suggested edit was made.

16: The suggested change was made.

17: The referenced paragraph has been removed from the document.

18 16. Considering the data presented in Table 3.5-7, revise the word "almost" to "about" and revise the phrase "California Alternatives" to "Alternative". (Page 3.5-24, paragraph 4, lines 4-5)

19 17. Revise the sentences, "The Tribe maintains a claim to additional lands and reserved water rights in California, which will likely be settled soon recognizing the Tribe's right to additional reserved water rights from the Colorado River in the amount of 3,022 acre-feet. The Tribe and State of California have agreed upon a settlement of that claim which is presently before the US Supreme Court for settlement." to "In its June 19, 2000 Opinion, the US Supreme Court accepted the Special Master's uncontested recommendation and approved the proposed settlement of the dispute respecting the Fort Mojave Indian Reservation. Under the settlement the Tribe is awarded the lesser of an additional 3,022 acre-feet of water or enough water to supply the needs of 468 acres." (Page 3.14-7, paragraph 3, lines 18-23) Revise the phrase, "The attached tables incorporate the proposed" to "The above tables incorporate the". (Page 3.14-7, paragraph 3, line 23)

20 18. In Table 3.14-1, in row 11 labeled "M&I Priority" please review the phrase "(should be 18,135)" with the values "18,145" in the columns "Likely Future without GRIC" and "With GRIC Settlement" for that row. In row 12 labeled "Indian Allocation (AkChin)(minus losses)" please review the "1'" found in the "With GRIC Settlement" column. (Page 3.14-12)

21 19. In Table 3.14-2 in the row labeled "Colorado River – Yuma Mesa and Wellton Mohawk", the columns from left to right "Likely Future without GRIC", "Total Water", and "With GRIC Settlement" show the value of "68,400". However, the next column to the right, "Total Water" shows a value of "64,800". It appears that this value should be "68,400" as it is the 68,400 value which when added to the second row value of "801,574" in the "With GRIC Settlement" column sums to "869,974" in the column to the right labeled "Total Water" in the second row. Should "GAGRD" in the fifth row label be "CAGRD", the acronym for the Central Arizona Groundwater Replenishment District? (Page 3.14-2)

22 20. It is stated that "At that elevation Lake Mead has a nominal 'live capacity' of 27,377,000 acre-feet and an active capacity of 17,353,000 acre-feet above elevation 1083 feet msl, the minimum elevation for power generation." (Attachment A, page 1, paragraph 3, line 8) It is also stated that "The minimum water surface elevation for efficient power generation is 1083 feet." (Page 3.3-23, paragraph 1, lines 4-5) Please clarify whether the word "efficient" should be inserted before "generation" in the sentence quoted above in Attachment A.

23 21. Revise the word "Protection" to "Policy". (Attachment H, Six States Alternative, page 2, paragraph 5, line 2) The same comment applies for the California Alternative, and the Shortage Protection Alternative.

-3-

18: Comment noted. This section has been revised to incorporate information resulting from modeling conducted for the FEIS.

19: We agree the second subparagraph under paragraph 3.14.2.6 needs to be revised to recognize the Supreme Court's recent opinion. However, in revising the paragraph, we relied primarily on the suggested rewording from the Ten Tribes Partnership. See response comment 53-14.

20: In Table 3.14-1, San Carlos Apache, M&I Priority, 18,145 acre-feet per year is listed as the M&I allocation under both the future with the GRIC settlement and the future without the GRIC settlement. This volume of water is based on the CAP Simulation Study and the draft EIS for the CAP Reallocation, dated June 2000. A note is provided in Table 3.14-1 stating that 18,135 AF per year is the volume of water which should be listed because that volume was allocated in the legislation. A footnote was written in the FEIS to explain the two numbers. The "1" in Table 3.14-1, San Carlos Apache, Indian Reallocation (Ak Chin) (minus losses), will be corrected to read "30,800".

21: The quantity and acronym have been corrected.

22: The sentence referred to is in Attachment C of the FEIS. It has been modified as suggested.

23: The correction will be made.

SEP. 8.2000 3:41PM MWD NO.236 P.7

24 | 22. Revise "August-July" to "July-July". (Attachment I, Draft: Last Revision, August 28, 2000, page I-11, first table, row 7)

25 | 23. Please expand Table 6, "Hoover Dam Elevation and Output", Attachment N, to include elevations 1083 and 1050 feet.

24: This correction has been made.

25: Median reservoir elevations, which were used for the power analysis, remain above 1083 feet throughout the period of analysis. Therefore, elevations 1083 and 1050 feet were not included in the table.

09/11/2000 18:12 5206805430 LHC PD CTY ATTY PAGE 01

MOHAVE COUNTY WATER AUTHORITY
P.O. BOX 2419
BULLHEAD CITY, AZ 86430

FAX TRANSMITTAL LETTER
FAX NO. (520) 680-5430

DATE: September 11, 2000
NO. OF PAGES: 3 **(INCLUDING TRANSMITTAL LETTER)**

TO: Jayne Harkins
Bureau of Reclamation
FAX NO: (702) 293-8042

FROM: Maureen George
DEPT: OFFICE OF THE CITY ATTORNEY
TELEPHONE: (520) 453-4144

URGENT

SUBJECT: Comments on Draft EIS – Colorado River Interim Surplus Criteria

COMMENTS/INSTRUCTIONS: To follow is a REVISED letter to that of the one faxed to you on Friday, September 8. Please replace page 2 of the September 8 letter with the REVISED page two attached hereto. Thank you for your assistance.

CAUTION PLEASE FORWARD DOCUMENTS TO ADDRESSEE IMMEDIATELY UPON RECEIPT. THE INFORMATION CONTAINED IN THIS FACSIMILE MESSAGE IS CONFIDENTIAL AND INTENDED SOLELY FOR THE USE OF THE INDIVIDUAL OR ENTITY NAMED ABOVE. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, OR THE EMPLOYEE OR AGENT RESPONSIBLE FOR DELIVERING IT TO THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISSEMINATION, DISTRIBUTION, COPYING OR UNAUTHORIZED USE OF THIS COMMUNICATION IS STRICTLY PROHIBITED.

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MOHAVE COUNTY WATER AUTHORITY
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BULLHEAD CITY, AZ 86430
(520) 754-2555
(520) 754-4622 (fax)

September 11, 2000

VIA FACSIMILE AND U.S. MAIL
(702) 293-8042

Regional Director
Lower Colorado Region
Attn: Jayne Harkins (LC-4600)
Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

RE: Comments on the Draft Environmental Impact Statement (EIS) regarding Colorado River Interim Surplus Criteria, Colorado River Basin

Set forth below are the comments of the Mohave County Water Authority on the Draft EIS dated July 7, 2000, in regard to proposed Colorado River interim surplus criteria.

1 1. The Draft EIS fails to address in any meaningful way the increase in the relative risk of shortage to Arizona users, particularly broken down by category of user. This is a glaring omission of key information necessary for water users in Arizona to make a determination as to the impact of the interim surplus criteria.

1: See responses to Comment 53-16 and 14-11 for discussions of depletion schedules and Arizona shortages.

2 2. The report fails to address the unresolved issue of the relative priority among fourth priority users in Arizona. Again, a key factor necessary for those holders of fourth priority rights in Arizona to make a determination as to the impact of the interim surplus criteria.

2: See responses to Comment 53-16 and 14-11 for discussions of depletion schedules and Arizona shortages.

3 3. The EIS does not address the impact on existing contractors for fifth and sixth priority water. The Decree provides that Arizona is entitled to 46% of the water available in the surplus year. Either we are or are not in a surplus condition and, if we are, then those holders of surplus contracts, up to 46% in Arizona, are entitled to take such water on the basis provided in the Decree.

3: See responses to Comment 53-16 and 14-11 for discussions of depletion schedules and Arizona shortages.

4 4. The EIS fails to address the fact that Arizona's apportioned but "unused" water may only be available because the Arizona Water Bank, pursuant to these interim guidelines and agreements with other states would, to the detriment of Arizona water users, agree to forebear taking water that would otherwise be banked in favor of CAP and other fourth priority users.

4: As stated in Chapter 2 of the FEIS, the Secretary will continue to apportion water consistent with the applicable provisions of the Decree. The Secretary will also honor forebearance arrangements made by various parties for the delivery of surplus water or reparations for future shortages.

5 5. The report fails to address in any detail the reasoning behind Arizona going to 2.3 in years of shortage versus California taking its full priority. A related issue is the provision that a consequence of not complying with the cut back in usage to 4.4 million a/f (although the numbers would appear to be 4.8 million a/f) MWD shall be reduced to a maximum of 200,000 a/f per year even though they may have diverted millions of acre feet.

5: As described in Section 3.3.3.4, the magnitude of the shortage to CAP was strictly a modeling assumption. The Colorado River Basin Project Act provided California with a 4.4 maf priority over CAP diversions.

6 | 6. The only acceptable reparation is wet water, available in the shortage year when needed, up to the amount that would have been available but for any water diverted by California as a result of these interim guidelines.

6: See response to Comment 56-32, regarding reparations.

7 | 7. The proposed interim guidelines provide for no reparation to Arizona for continued use of water beyond its allocation when such water will only be "available" if Arizona either declines to take its apportionment in order to assist California or, in the alternative, declines to take the surplus to which it is entitled. We are concerned that either of these actions would be a detriment to water users in Arizona, particularly those outside the CAP.

7: See response to Comment 56-32, regarding reparations.

8 | 8. The report fails to address in any detail the practical bottom line, i.e., water use is going to continue to increase astronomically at the rate California is growing. There is little or no probability that water use will actually decrease to the 4.4 number without significant enforceable sanctions which certainly are not present in the proposed interim guidelines.

8: See response to Comment 33-3.

9 | 9. The report seems to indicate while there may be an increase in demand on the Colorado River, for example in Mohave and Yuma counties, such demand is many years out. This is not true. The Arizona Water Bank's recent study indicated Lake Havasu City, for example, will run out of water prior to the proposed expiration of these interim surplus guidelines. The Draft EIS makes no effort whatsoever to address the concerns of fourth priority mainstream river users as opposed to those in CAP.

9: See response to Comment 53-16 for a discussion of depletion schedules.

10 | 10. The report states the Bank's primary purpose is to firm CAP supplies. This is not true. It has an equal obligation to firm the supplies of river communities. Our concern is that obligation would not be met if these interim surplus criteria are adopted.

10: Comment noted. The evaluation of Arizona's groundwater banking programs is outside the scope of this project.

11 | 11. The Draft EIS fails to take into consideration the cumulative impact on Colorado River main stem users in Arizona of the proposed interim surplus criteria, the other provisions of California's 4.4 Plan, the policy of Reclamation regarding the use of effluent on the river and the proposed reallocation of the CAP project water supply in conjunction with settlements of CAP and Indian water rights disputes.

11: No cumulative impacts have been identified for the issues raised in this comment. Note that potential effects on water users in Arizona are identified in Section 3.4 of the EIS.

12 | Absent more information on the relative priorities among fourth priority users in Arizona, and the relative increased risk of shortage over time to the various classes of users in Arizona, the Mohave County Water Authority must object to any but the no action alternative.

12: We have modified the reference to reductions in times of shortage in the third paragraph on page 3.4-15, to recognize that in Arizona a reduction in the amount of Colorado River water available to fourth priority users would be shared pro rata among CAP and non-CAP entitlement holders.

Sincerely,

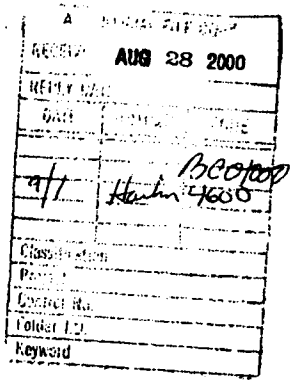
Maureen R. George

MAUREEN R. GEORGE
Secretary-Treasurer
Mohave County Water Authority

c: Mohave County Water Authority Board of Directors
Lake Havasu City Mayor and City Council
Bruce Williams, City Manager

OURAY PARK IRRIGATION CO., INC.

HC 69 Box 127 - Randlett, Utah 84063-0092
Phone 435-823-7709 - Fax 435-545-2710



Ms. Jayne Harkins
P.O. Box 61470
Boulder City, Nevada 89006-1470

August 21, 2000

To Ms. Jayne Harkins:

1 As President of Ouray Park Irrigation Company which controls the water to approximately 12,000 acres in northeastern Utah, I would like to show support for the 7 Upper Colorado Basin states proposal. I would also like to encourage the Secretary of Interior to adopt this proposal as the preferred alternative in the final environmental assessment.

Thank you,

Shane Frost
Ouray Park Irrigation Co. President
HC 69 Box 127
Randlett, Utah 84063

1: The preferred alternative in this FEIS is derived from the Seven States Proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures.

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4600

September 8, 2000
VIA fax and US mail

Ms. Jayne Harkins
Bureau of Reclamation
Attn: BCOO – 4600
PO Box 61470
Boulder City, NV 89006-1470
(fax: 702-293-8042)

RE: COMMENTS ON DRAFT EIS ON COLORADO RIVER INTERIM SURPLUS CRITERIA

Dear Ms. Harkins:

Salt River Project (SRP) is an agricultural improvement district in the state of Arizona and through its electric utility operation serves over 750,000 electric utility customers. SRP purchases power produced by the Colorado River Storage Project (CRSP). Parker-Davis Project and the Boulder Canyon Project, and thereby has a direct and specific interest in the operation of the generation in the Colorado River and the draft EIS on Colorado River Interim Surplus Criteria.

1 SRP supports the comments submitted by the Colorado River Energy Distributors Assn (CREDA) (attached).

Sincerely,

John Coggins
Manager, Supply & Trading

Cc: Leslie James, CREDA

1: Support of comments submitted by Colorado River Energy Distributors Association - comment noted.

San Diego County Water Authority
A Public Agency
3211 Fifth Avenue • San Diego, California 92103-5718
(619) 682-4100 FAX (619) 297 0511

SEP 20 2000

September 8, 2000

Regional Director, Lower Colorado Region
c/o Jayne Harkins (LC-4600)
Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

Dear Ms. Harkins:

1 This letter presents the Authority's comments on the Bureau of Reclamation's July 2000 Colorado River Interim Surplus Criteria Draft Environmental Impact Statement (DEIS). Surplus criteria are linked to other key elements of California's Colorado River Water Use Plan, including the Authority's core water transfer with the Imperial Irrigation District and the quantification of California's priority system for Colorado River water users. The implementation of appropriate surplus criteria is thus necessary to enable other critical programs for reducing California's demand on Colorado River water supplies above the state's basic apportionment.

The Authority supports and urges the Bureau to adopt and implement the surplus criteria guidelines proposed and presented by all seven Colorado River Basin states to the Department of Interior on July 27, 2000. The guidelines, which were published by the DOI as supplemental information to the DEIS, were the product of intensive review and study by all seven states over a period of several years. All seven states are in agreement that the guidelines will produce the interim surplus water needed by California, without creating unmitigated risk to Arizona or other lower division water users.

Because the surplus criteria are linked to other California Plan elements, it is essential that all elements move forward in a coordinated fashion. The seven states' proposal, for example, makes surplus guidelines effective only after the quantification settlement agreement becomes effective. Surplus guidelines are also a required condition for the Authority's water exchange agreement with the Metropolitan Water District, which is needed to transport up to 200,000 af of conserved agricultural water from the Imperial Valley to the Authority for future urban use. California's agencies have obligations to develop programs that offset demand for Colorado River water by specific dates. The guidelines contain benchmarks to ensure that California makes progress on developing the programs needed to reduce demand. If sufficient progress is not made, the surplus guidelines are subject to termination.

2 cont'd below Potential impacts from use of the seven states' surplus guidelines fall within the range of alternatives analysis contained in the DEIS. We believe no important parameter studied in Chapter 3 of the DEIS, Affected Environment and Environmental Consequences, would be outside the range of alternatives already reviewed. Computer modeling by the seven states has shown that impacts on reservoir system operation, reservoir elevations,

MEMBER AGENCIES
CITIES
IRRIGATION DISTRICTS
WATER DISTRICTS
MUNICIPAL WATER DISTRICTS
COUNTY
PUBLIC UTILITY DISTRICT
FEDERAL AGENCY

1: Comment noted.

2: Reclamation concurs with the position expressed in this comment with respect to the Basin State alternative included in this FEIS.

2 cont'd and water supplies would likely fall in a bandwidth between modeling results from the "California" and "Six States" alternatives reviewed by the DEIS. The same result holds true for the remaining factors reviewed in this chapter, such as riverflow issues, aquatic resources, special-status species, recreation, and energy resources.

3 The DEIS specifically requested comments regarding appropriate baseline criteria. While a case might be made for utilizing either the "75R" or "70R" strategy for baseline conditions, to in effect recreate recent Annual Operating Plan history, we feel the differences between the two strategies are too slight to be of any consequence for the comparison of surplus criteria alternatives. The choice is even less consequential after considering that the Secretary currently enjoys discretion to declare surplus based upon varying year-to-year water conditions, as noted in the DEIS. Neither strategy is fully capable of mimicking the recent history of surplus declarations. It should be noted that the seven states' surplus guidelines proposes using the "70R" strategy, both as a specified level of surplus during the interim period, and as the basis for surplus determinations after the interim period.

We appreciate the work the Bureau has done preparing the DEIS. Should you have any questions regarding the Authority's comments, please contact Mr. Dave Fogerson at 619-682-4153.

Sincerely,

Gordon A. Hess

Gordon A. Hess
Director of Imported Water

3: Reclamation has noted the comment regarding the relative roles of 70R and 75R strategies in portraying differences among alternatives. See response to Comment 57-11 for additional information.

SOUTHERN CALIFORNIA EDISON
An EDISON INTERNATIONAL Company

September 8, 2000

Mr. Robert W. Johnson
Regional Director, Lower Colorado Region
Attn: Jayne Harkins (LC-4600)
Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

VIA FACSIMILE
(702) 293-8042

Comments to the Draft Environmental Impact Statement for the Colorado River Interim Surplus Criteria

Dear Mr. Johnson

By your letter dated Jun 29, 2000, you solicited comments to the Draft Environmental Impact Statement (DEIS) that analyzes potential environmental impacts of adopting specific interim criteria under which surplus water conditions may be declared in the Lower Colorado River Basin during an interim period that would extend through 2105. The comments of the Southern California Edison Company (Edison) to the DEIS are provided below.

Edison finds that the DEIS is flawed in at least three areas: determination of base line alternative conditions, lack of mitigation measures, and understatement of environmental impacts due to reduced capacity.

Determination of Baseline Alternative Conditions

1 | The no action alternative and baseline conditions do not represent the consensus of the entities linked to the Lower Colorado River. The baseline alternative represents a new condition that has not been reviewed by water and power users of the lower Colorado River system. The proposed baseline conditions are not consistent with the conditions provided by the U.S. Bureau of Reclamation (Reclamation) in the annual rate process associated with the Boulder Canyon Project. The DEIS forecasts higher energy amounts than the amounts forecast by the annual rate process for the Boulder Canyon Project. The higher energy amounts in the DEIS imply a higher lake elevation than that implied in the Boulder Canyon Project rate process.

For example, the latest rate process for the Boulder Canyon Project shows energy generation to equal 4,501,001 MWh for the period 2004 through 2017 which is equivalent to a lake surface elevation of 1,159 feet. The DEIS shows the baseline energy amount to be 4,623 MWh during the year 2017 and a lake surface elevation of 1,170 feet. The amounts in the DEIS are greater than the amount used to develop firm power rates for the Boulder Canyon Project.

The baseline seems to be defined in a way which would preclude findings of significant impact. Under the described baseline condition, water levels at Lake Powell and Lake Mead would

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Rosemead, CA 91770-0800

1: The 70R strategy is used for the baseline in this FEIS. Reclamation has updated the surplus depletion schedules for California, Arizona and Nevada. This and other changed modeling assumptions could account for the increased energy amounts in this process. The updated schedules will be utilized in future annual rate processes. Reclamation believes the baseline used appropriately reflects future conditions.

steadily decline over the study period. The declaration of surplus water at these sites would further reduce water levels, but apparently not significantly. If the baseline were defined differently, the lowering of water levels associated with each alternative might be found to cause more significant environmental effects. It would seem more reasonable to describe the baseline as including relatively full reservoirs, with water releases and energy production at current and/or historic average levels.

Lack of Mitigation Measures

2 | Another weakness of the DEIS is the failure to identify any mitigation measures. It might be argued that the failure to find significant environmental impacts precludes the need to identify mitigation measures. However, if the comparison to a more reasonable baseline were made, the impacts might be found to be of greater significance, thus requiring mitigation.

Reclamation should consult with the water and power entities of the lower Colorado River system to identify the baseline conditions for all users of the lower Colorado River system.

Environmental Impacts of Reduced Capacity

3 | The DEIS trivializes the impact of replacing capacity and generation lost as a result of a lowering elevation of Lake Mead. The load following capability of Hoover is one of the best in the west. Hoover can change operating levels at a rate at least ten times faster than present fossil fueled generation plants. Each MW of reduction would have to be replaced by at least ten MW of conventional fossil generation. Carried to the extreme, Hoover is equivalent to about 20,000 MW of load following capability from fossil fueled generation. Since no large hydroelectric generation sites are planned for construction in the WSCC, the amount of lost load following capability will come from other resources including fossil fueled generation with attendant environmental consequences.

The DEIS should be expanded to assess the amount of capacity that would have to be replaced to supply load following capability and the environmental impact of the replacement capacity.

Thank you for giving Edison an opportunity to provide comments.

Sincerely,

Donnie L. Dayer

2: Comment noted. Although no impacts were identified that required mitigation, the FEIS includes a discussion of environmental commitments in Section 3.17. Note also that the baseline used in the FEIS (a 70R operating strategy) has been modified from that presented in the DEIS (a 75R operating strategy).

3: As discussed in Section 3.10.2.2 of the FEIS, Reclamation recognizes that the load-following capability of Hoover is important. The differences in the amount of capacity available for load-following between the baseline strategy and the alternatives is identified in the EIS.

SOUTHERN NEVADA
WATER AUTHORITY

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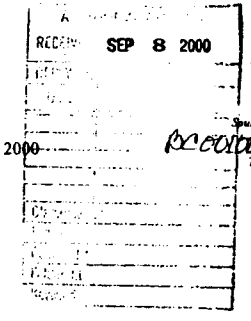

September 6, 2000

Ms. Jayne Harkins
Attn: BCOO-4600
Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

Dear Ms. Harkins:

SUBJECT: COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE COLORADO RIVER INTERIM SURPLUS CRITERIA

In July 2000, the Bureau of Reclamation (Reclamation) issued a Draft Environmental Impact Statement (DEIS) on the Colorado River Interim Surplus Criteria. The Southern Nevada Water Authority (Authority) would like to take this opportunity to provide comments. The Authority represents the major water and wastewater purveyors in southern Nevada, including the Las Vegas Valley Water District, the Cities of Boulder City, Henderson, Las Vegas, and North Las Vegas, the Clark County Sanitation District, and the Big Bend Water District in Laughlin. These agencies serve over 1.3 million people in the southern Nevada region. The Authority and its members control over 90% of the State of Nevada's 300,000 acre-foot consumptive right from the Colorado River.

The Authority supports Reclamation's proposal to establish interim surplus criteria on the Lower Colorado River. The criteria are intended to provide direction during an interim 15-year period for the annual determination by the Secretary of the Interior of normal, surplus, and shortage conditions in the Lower Colorado River Basin. They will facilitate efforts by the State of California to reduce its use of Colorado River water down to its 4.4-million acre-foot basic apportionment. They will also afford other Lower Division states, who have contracted for surplus water, a greater degree of predictability about its annual availability.

1 cont'd below

Specifically, the Authority supports the proposal submitted by the seven Colorado River basin States (Seven Basin States proposal) for the interim surplus guidelines. In the past year, the seven basin states have spent substantial time and effort and have made significant progress in their negotiations on interim surplus, which have culminated in a set of interim surplus guidelines agreed to by each state. These guidelines were presented to Reclamation by the seven states, and Reclamation issued them to the public in a Federal Register notice on August 8, 2000.

BOARD OF DIRECTORS

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Patricia Mulroy
General Manager

1: The preferred alternative in this FEIS is derived from the Draft Seven States Proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures.

1 cont'd

The modeling approach used to perform the impact analysis and review of alternatives in the DEIS is legitimate, impartial, and best simulates the Colorado River system. Potential environmental impacts are minimal and interim in nature, and the Colorado River system would revert to baseline conditions after the expiration of the 15 year interim period.

Based upon our analysis, the Seven Basin States proposal is within the range of alternatives and impacts analyzed in the DEIS. Reclamation's National Environmental Policy Act guidance allows new or modified alternatives that do not have any significant differences in environmental impacts to alternatives analyzed in the DEIS to be fully incorporated into the Final EIS. The Seven Basin States proposal does not change the results relative to potential impacts in the DEIS. The Authority supports designation of the Seven Basin States proposal as the Preferred Alternative in the Final EIS and as the final decision in the Record of Decision.

The Authority acknowledges the leadership shown by the Department of Interior in implementing this process of developing interim surplus guidelines, and appreciates the opportunity to be involved in the process. If you have any questions about these comments, please contact David Donnelly, Deputy General Manager, at (702) 258-3107.

Sincerely,

Patricia Mulroy
General Manager

PM:JM:LL:sh

Uintah Water Conservancy District
78 West 3325 North
Vernal, Utah 84078
Phone 789-1651
Fax 789-1670

"Steinaker Dam"
"Red Fleet Dam"

September 5, 2000

Ms. Jayne Harkins
Attention BCOO-4600
Bureau of Reclamation
P.O. Box 61470
Boulder City, Nevada 89006-1470

To Whom It May Concern:

The following comments are made on the Proposed Colorado River Interim Surplus Criteria Draft Environmental Impact Statement.

The Uintah Water Conservancy District (UWCD) was organized according to the laws of the State of Utah. UWCD has direct control and management of Red Fleet Dam and Reservoir and Steinaker Dam and Reservoir, which are part of the Jensen and Vernal Units of the Central Utah Project. UWCD and its water users also have diversion rights to Green River water for more than 54,000 acre-feet annually. UWCD has more than 20 water providers (companies) that serve nearly 80,000 acres of irrigated lands and provide more than 26,000 acre-feet of culinary water. In addition, UWCD water users have increased their water use efficiency to the point of reducing salinity contributed to the Colorado River System by 92,000 tons annually. Consequently, UWCD has a compelling interest in all Colorado River operational matters, but especially those matters that might impact availability of water under current entitlements for beneficial consumptive use or present water right assignments.

Purpose and Need

For many years, California has been diverting more than its 4,400,000 acre-feet apportionment as defined in *Arizona v. California (1964)*. Prior to 1996, California drew on **unused** apportionments of other Lower Division States made available by the Secretary of the Interior. Since 1996, California has also drawn on **surplus** water made available by Secretarial determination. California is developing measures to reduce its draw on the Colorado River System through conservation, surface and underground storage, conversion of available agriculture water to M&I deficiencies, and other measures. Unfortunately, the full effect of these measures on California's draw on the Colorado River will not be seen for many years.

Colorado River surplus flow determinations have their origins in the *Criteria for Coordinated Long-Range Operations of Colorado River Reservoirs* (LROC) adopted in 1970. Article III

(3)(b) of the LROC set general conditions for surplus determinations. Occasionally, the Secretary has determined that surplus conditions exist, based primarily upon avoiding mandatory flood control releases. This narrow interpretation of surplus is heavily biased toward **supply**. Other discussions were heavily biased toward **need**. These discussions have led to much controversy among the Basin States and suggest that more discrete surplus criteria should attempt to balance both need and supply considerations. Meanwhile, the need for surplus determinations by California has risen sharply because of the dramatic reduction of unused apportioned water in Arizona and Nevada.

1

1: Comment noted.

Upper Basin Depletion

While California is drawing far more water from the Colorado River than allocated (often as much as 800,000 acre-feet more than allocated) and Arizona and Nevada are using nearly their full allocation, the Upper Basin States have not developed their share of Colorado River water at the same pace. They have chosen a more conservative and judicial approach to Colorado River water development. *The Colorado River Compact of 1922* allocated 7,500,000 acre-feet annually to the Upper Basin States in **perpetuity**. This means there is no schedule or time horizon to cause this allocation to expire. The Compact **guarantees** the delivery of the Lower Basin's allocation, so if there is a shortage, the shortage burden is on Upper Basin. The latest "Hydrologic Determination" indicates that only 6,000,000 acre-feet are available for Upper Basin development. So, for all practical purposes, the Upper Basin States have already lost 1,500,000 acre-feet from their "permanent" allocation.

2

UWCD believes the implementation of Interim Surplus Criteria as proposed by the Seven Basin States will not jeopardize the further development of Upper Basin entitlements. Also, the proposed criteria will not limit the water available for existing uses during the 15-year interim period.

2: Comment noted.

Conclusion

3

UWCD applauds the efforts of the Seven Basin States to reach agreement on guidelines for implementing Interim Surplus Criteria. This represents a "Herculean" effort by a highly diverse group of Colorado River stakeholders. It is unprecedented in scope and should cement the Record of Decision by the Secretary. UWCD encourages Reclamation and Interior to conclude the NEPA compliance process as scheduled and without interruption or delay. The existing problems with fish and wildlife habitat in the Colorado River Delta and the Salton Sea will not be aggravated by this action. If Colorado River water is to be used to solve these problems, it must come from existing entitlements. This agreement is a reasonable approach to make the transition suggested by California. The agreement provides protection to the States and treats Lake Powell and Lake Mead equally. It also provides some enforceability because of the provisions that 70R of the existing Annual Operating Plan are implemented if the agreement is not adhered to.

3: Comment noted.

4

4: Comment noted.

5

5: Comment noted.

6

UWCD further believes that the consequence of no action on this issue would be protracted and costly legal challenges. Any legal action will likely transfer the decision process from water resource experts to the unpredictable legal arena that may further jeopardize Upper Basin entitlements. In light of the public comment meeting held in Salt Lake City, Utah on August 23,

6: The preferred alternative in this FEIS is derived from the Seven States Proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures.

cont'd | 2000 and the absence of any opposition whatsoever, UWCD strongly encourages the implementation of the Seven Basin States guidelines for Interim Surplus Criteria.

7 | UWCD acknowledges that other Colorado River issues that remain unresolved. Water in satisfaction of the Mexican Treaty remains a federal obligation and the minimum objective release requirements from Glen Canyon Dam are contrary to Upper Basin interests and to UWCD interests, as well. However, these issues do not detract UWCD from unqualified support of this action.

8 | Finally, UWCD recommends that Reclamation proceed with the development of the Annual Operating Plan (AOP) for Colorado River Reservoirs for 2001 without delay and without the Record of Decision on the Interim Surplus Criteria. The Seven Basin State agreement should be regarded as the basis for surplus determination for the year 2001. There are no other highly charged issues that are influenced by the AOP.

Sincerely,

Scott Ruppe
General Manager

CC:
Larry Anderson, Utah Division of Water Resources

Cloyd Harrison, Uintah County Commission

Randy Crozier, General Manager, Duchesne Co. Water Conservancy District

7: Comment noted. Reclamation recognizes that the Upper Basin disagrees with the minimum objective release currently in the LROC.

8: The determination of surplus conditions for 2001 is based on the factors listed in Article III(3)(b) of the LROC. This Article allows for consideration of all relevant factors, including, but not limited to, those specifically listed in the Operating Criteria, whether or not a decision is made for the proposed interim suplus criteria.

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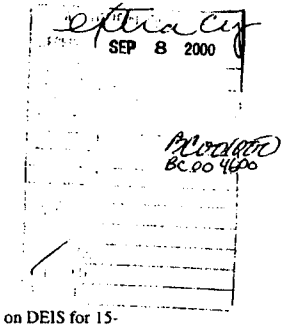

VIA FAX AND OVERNIGHT MAIL

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

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.

5 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

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

7 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

15 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.

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,

16 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.

The Needs of the Lower Basin for Certainty Cannot be Divorced from Identical Needs in the Upper Basin

10 The Lower Basin cannot be viewed in isolation from the Upper Basin. The Secretary has now taken the position that BUREC may operate CRSPA facilities to prevent Upper Basin development, at least development not politically favored by the Secretary. This position is dangerous to the position of the Upper Basin, despite any assurances that Colorado's negotiating team may have given to the other Upper Basin States. If BUREC can utilize CRSPA to prevent, rather than to aid, Upper Basin development, why should the Upper Basin believe that Lake Powell storage levels will remain inviolate, if indeed they will at all? Could a 14.85 maf storage level at Lake Mead trigger Compact delivery requirements at the other, smaller CRSPA reservoirs above Lake Powell?

Given BUREC's recent attempts to prevent Upper Basin development in Colorado, representing the majority of the Upper Basin's Compact Share, the opportunity afforded the Upper Basin to sue the Secretary to protect Lake Powell storage levels may not be a viable remedy.

Inadequate Attention is Paid to the Delivery of "Surplus" Waters For Groundwater Banking in the Lower Basin

Groundwater banking in the Lower Basin of genuine flood surplus flows is unobjectionable, and generally wise. The situation is different where the delivery of artificial surpluses, which require lowering Lake Mead storage levels, is made for groundwater banking.

11 To protect the Upper Basin, it is imperative that equalizing releases from Lake Powell not be made to Lake Made to replace water delivered for groundwater banking. The 15-year agreement, and the DEIS, fail to account for the potential impact on the Upper Basin from groundwater banking in the Lower Basin.

The UPWA questions whether groundwater banking of other than flood surplus flows is a current, beneficial use in the Lower Basin for which deliveries of other than flood surplus flows are authorized for Compact purposes.

The Protection Offered to the Upper Basin is Illusory Given Related Actions by the United States

12 The UPWA thus brings a unique perspective to its comments. Though the 15-year agreement is ostensibly designed, in part, to offer assurance to the Upper Basin states, including Colorado, that its right to develop Upper Basin allocations will be protected, such protection appears to be illusory, at best. The United States is already moving aggressively to prevent Upper Basin development predicated upon its control of federally owned facilities, including CRSPA facilities.

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10: The statement that the "Lower Basin cannot be viewed in isolation from the Upper Basin", is a true and valid statement. In the analysis, both the Upper and Lower basins were considered. Future increased water development in the Upper Basin is incorporated into the analysis. Computer model simulations of the Colorado River used in the DEIS incorporate the 1996 Upper Basin depletion schedule, developed by the Upper Colorado River Commission in coordination with the Upper Basin States. For the FEIS, an updated depletion schedule, developed in 1999, was used. The computer modeling performed for all alternatives showed no instances where water stored in reservoirs above Lake Powell was required to be released to satisfy the requirements of the Colorado River Compact.

11: During the interim surplus criteria period, the agencies that have contracted for surplus water will use surplus water, when available, to meet direct water supply demands, as well as to provide a source of water for conjunctive use and storage programs. The delivery of water to Colorado River water users will be in accordance with the guidelines developed for the selected surplus alternative, if one is selected, and will be consistent with the Law of the River. The FEIS considered and evaluated the potential impact to the Upper Basin users resulting from the surplus alternatives. The analysis results indicated that the interim surplus criteria would have no significant effect on the Upper Basin users as a result of the interim surplus criteria.

12: Reclamation is required to take certain actions to administer United States obligations under the Endangered Species Act and we acknowledge that some actions to meet species protection mandates may affect river operations. Reclamation's required actions to protect and enhance habitat for threatened and endangered species in the United States should not be interpreted as opposition to Upper Basin development. The United States does not assume an obligation to mitigate for adverse impacts in Mexico, but supports joint cooperation projects that would benefit both the United States and Mexico. We acknowledge that in the long run, Upper Basin development will reduce the amount of surplus water available for delivery in the Lower Basin.

cont'd

Recent activities and litigation in the Lower Basin and in the Rio Grande raise concurrent concerns about future use of the Endangered Species Act to bypass statutory and Compact requirements in the name of species protection. The United States and numerous environmental groups are moving aggressively to utilize the Endangered Species Act to prevent additional water development in the Upper Basin and elsewhere, and to concurrently re-orient the use of federal water facilities and water operations to protect endangered species. The DEIS fails to analyze the likely impact of these activities and litigation upon the future operation of facilities in the Upper Basin and the Lower Basin. For example, in the Rio Grande drainage, the United States is asserting that its ownership of facilities allows it to mandate releases and bypasses to meet species protection goals under the ESA. A recent lawsuit by environmental groups in the United States and Mexico to protect endangered species in both countries has raised an issue regarding the ability of the Secretary to honor statutory or Compact commitments in the long term when faced with legal challenges to current patterns of operation. These activities do not occur in a vacuum when considering the fate of Upper Basin development, and raise immediate concerns about federal opposition to further Upper Basin development. The 15-year agreement contains no federal commitments protecting the Upper Basin.

The operational effects of Federal environmental initiatives, including the ESA, upon CRSPA facilities, critical to meeting Lower Basin needs during the 15-year agreement, must be evaluated. The U.S. is currently involved in litigation as both a plaintiff and a defendant, and the outcome of current ESA litigation on the 15-year agreement, and the Upper Basin, needs to be evaluated. Once again, these concerns are not theoretical, or in the future, but real, and present now. In Colorado, significant releases from Blue Mesa Reservoir are already contractually dedicated to endangered species protection. What is the cumulative impact of all these policies and actions on the Upper Basin and its human populations? The DEIS offers no such analysis.

13

The DEIS further notes that lowering Lake Mead storage levels may create additional habitat for endangered species at several locations. There is no discussion of the arguments that could be made for such a situation becoming either permanent, or the object of additional protection. What effect would the creation of additional habitat at Lake Mead have upon equalizing flows from Lake Powell?

The 15-year Agreement and the DEIS ignore the Need to Develop the Upper Basin as the Necessary Complement to Fair Implementation

14

The 15-year agreement has the effect of looking at major developments in the Lower Basin in isolation. Though the 15-year agreement may help to support the Upper Basin's already strong legal claim to develop its remaining Compact share, the practical effect is far more limited. The reasons for those limitations are discussed above.

The Upper Basin has no reason to be sanguine about its future prospects without concurrent action to develop its own rights. The United States and environmental groups are actively working now to put in place legal requirements to make significant Upper Basin development difficult or impossible. Thus, re-orientation of Lower Basin allocations should not be considered in isolation

13: Additional riparian habitat could develop at various locations around Lake Mead when lower surface elevations occur. As discussed in Section 3.8, lower elevations could occur under baseline conditions and each of the alternatives depending primarily upon future hydrologic conditions and Lake Mead water releases. The EIS recognizes that fluctuating reservoir elevations would continue under baseline conditions and the alternatives, which would likely result in future periods of both inundation and exposure of these areas. The proposed action would not change 602(a) equalization requirements.

14: Reclamation and other federal agencies have complex missions and sometimes conflicts arise on issues. For example, Reclamation's legal responsibility to administer the Endangered Species Act affects river operations and the timing of water deliveries. Reclamation does not oppose Upper Basin development but must fulfill its legal obligations under ESA, NEPA and other applicable federal legislation. We acknowledge that the construction and operation of water development projects has become more complicated with additional laws and environmental considerations, but such considerations cannot be ignored.

cont'd

from the crying need for Upper Basin development to avoid major shortages. These areas of shortage will include the Colorado Front Range communities, which are not protected by the agreement.

Put simply, the protection of municipal uses in the Lower Basin while municipal uses are actively prevented in the Upper Basin raises numerous issues which have not been answered by the DEIS. Such actions is the Upper Basin are directly related to the likely permanence of the use of Colorado generated surpluses in the Lower Basin, and in California particularly.

Conclusion

Though the 15-year agreement has some merit, it, like the Colorado River Compact itself, cannot be considered in isolation. The only real protection which the Upper Basin has will come with the development of its own potential, including the ability of Colorado to protect its own citizens from the effects of diminished supply and drought. In the meantime, the DEIS fails to account for federal aggressiveness in attempting to foreclose the very development which, in theory, the 15-year agreement attempts to protect. This is a matter critical to Colorado's water future, including the large urban populations of the Colorado front range. This human environment is plainly a major part of the NEPA equation, and must be addressed.

The DEIS fails to consider the threat to Lake Powell storage levels under drought conditions. The DEIS fails to consider the threat to Lake Powell storage levels from groundwater banking in the Lower Basin of other than flood surplus flows. The 15-year agreement and the DEIS fail to deal with the use of Lake Powell to equalize the delivery of artificial surpluses to the Lower Basin, and to the MWD in particular. Any threat to Lake Powell storage is a threat to the long term future of the Upper Basin. This is an issue of the first importance, but is not addressed.

Thank you for the opportunity to comment. Once again, we would like to renew our request for additional time to develop comments on the DEIS.

Sincerely,

VRANESH AND RAISCH, LLP

John R. Henderson

JRH:kes
cc: Union Park Water Authority

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UPPER COLORADO
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September 8, 2000

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BY FAX AND U. S. MAIL

Regional Director
Lower Colorado Region
U. S. Bureau of Reclamation
P. O. Box 61470
Boulder City, Nevada 89006-1470

Attention: Ms. Jayne Harkins - BCOO-4600

Dear Ms. Harkins:

On behalf of the Upper Division States, thank you for the opportunity to provide comments on the Draft Environmental Impact Statement (DEIS) and supplemental information on the "Colorado River Interim Surplus Criteria."

The Upper Colorado River Commission is an interstate administrative agency created by the Upper Colorado River Compact of 1948. The member States of the Upper Colorado River Commission are: Colorado, New Mexico, Utah and Wyoming. Since its inception, the Commission has actively participated in the development, utilization and conservation of water resources of the Colorado River Basin.

The Upper Colorado River Commission has been concerned for a long time about the Lower Colorado River Basin's demand for water in excess of its Compact apportionment. This has been especially true in California.

As early as 1990, discussions between California and the other Basin States were initiated in an attempt to encourage California to manage its demand for Colorado River water to remain within its basic Colorado River apportionment. Beginning in 1996, Lower Basin demands above 7.5 million acre-feet (maf) per year have been met because of favorable hydrologic conditions and through the use of a surplus determination as contemplated in Article II(B)(2) of *Arizona v. California*. Favorable hydrologic conditions may not, however, provide adequate water supplies to meet similar future Lower Basin demands.

California has recently completed the negotiation of a water management plan that could facilitate water conservation and transfer sufficient to allow California's needs to be met within its basic apportionment of 4.4 maf by 2016. Certain of the interim surplus criteria alternatives analyzed within your Draft Environmental Impact Statement could provide short-term certainty to domestic users in California and the other Lower Basin States while providing sufficient time for California to implement its necessary water savings and transfer activities.

The supplemental seven Basin States information provided by *Federal Register* notice dated August 8, 2000 is a carefully crafted set of interim guidelines that represent a consensus agreement among the seven States to govern the determination of surplus conditions in the Lower Colorado River for the next 15 years. These guidelines have been specifically developed to firm up domestic supplies in the Lower Basin while providing appropriate protection for all water users in the Colorado River Basin during the interim period. Further, the proposed guidelines are predicated on and contain enforceable measures to insure that California implements the necessary measures to manage its future demand on Colorado River mainstem water to 4.4 maf/year.

1 These seven Basin States-proposed guidelines fit within the range of the alternatives evaluated in the present DEIS. It is our full expectation that they will be adopted by the Secretary of the Interior as the preferred alternative in the Final Environmental Impact Statement (FEIS) and Record of Decision.

For further consideration in your development of the Final Environmental Impact Statement, we provide the following comments of specific concern:

2 (1) The Upper Colorado River Commission, in its review of the DEIS, finds that there are a number of views expressed in the DEIS concerning the "Law of the River" with which it disagrees or does not wholly concur. However, these differences do not significantly impact the results of the DEIS and thus the Commission does not see any merit in debating them in the DEIS process. However, the Commission wants it clearly understood by all parties that it is not, in any way, changing long-standing positions on Colorado River issues as a result of the way they may be stated in the DEIS. Rather, we would strongly encourage the Bureau of Reclamation to include the usual disclaimer it uses to address the differences that exist with respect to the "Law of the River."

3 (2) In December 1999, the Upper Colorado River Commission approved and made available revised Upper Basin depletions for use in long-range model studies. These revised depletions were provided to Reclamation in January 2000. These revised demands were used when the seven Basin States utilized CRSSEZ in analyzing the impacts of and arriving at the seven Basin States' interim surplus guidelines discussed above. Model studies for the Draft Environmental Impact Statement utilizing Riverware did not use these revised Upper Basin States depletion estimates. We request that the revised Upper Basin depletions be incorporated in any future modeling efforts to support your Final Environmental Impact Statement (FEIS).

4 cont'd below (3) The no action/baseline strategy, described as a 75R strategy, is not a strategy based on an accurate depiction of past actions. Surplus determinations have been made since 1996. The determination for 1996 was made retroactive, based on a 70R strategy and when demands were projected to exceed 7.5 maf. During the development of the 1997 Annual Operating Plan (April through June), hydrologic and forecast criteria substantiated a 70R strategy surplus determination. Only after completion of the "Field Draft" did water supply conditions change, jeopardizing a surplus determination justified by a 70R strategy. A conscious decision was made by Basin States representatives and Interior to stick by a surplus strategy supported by

1: The preferred alternative in this FEIS is derived from the Seven States Proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures.

2: Comment noted.

3: Revised depletion schedules provided by the Basin States were used in analyses for the FEIS. See response to Comment No. 14-10 for more detail.

4: The 70R strategy has been used for the baseline in this FEIS. For additional information, see response to Comment 57-11.

4 cont'd a 70R strategy surplus based on conditions prevalent during the time frame of Interior/Basin States negotiations. Surplus determinations since 1997 have all been made under flood control or 70R trace conditions. To suggest that a 75R strategy represents the no action (historical process) is not historically correct.

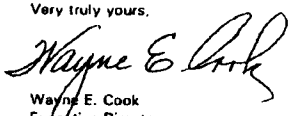
5 (4) The Draft Environmental Impact Statement characterizes the six Basin States plan as based on 75R trace hydrology. This is categorically incorrect. The six Basin States' guidelines (December 1998) as well as the present seven Basin States interim guidelines all have as a baseline condition a return to 70R trace criteria following the interim period.

6 (5) Your comparisons of alternative studies are not consistent in their assumptions. The Base Case and Flood Control alternatives were evaluated not including the water conservation and transfer contemplated in the California 4.4 plan. However, when similar studies were made for the six Basin States and California plan, these conservation and transfer measures were included, rendering the comparative results somewhat in error. All final comparative alternative studies must have similar assumptions, and we recommend that the provisions of the California 4.4 plan be a part of each analysis.

7 (6) All of the present alternative studies in the Draft Environmental Statement have been made without consideration of periodic inflows into the Colorado River from the Gila River above Yuma, Arizona. These periodic flows provide a significant impact on releases from Lake Mead for deliveries to Mexico and as such influence system demands and storage in both the Lower Basin and the Upper Basin. We believe these Gila River flows need to be included, and we encourage Reclamation to do so.

The timely adoption of interim surplus criteria is of the utmost importance in being able to provide dependable domestic water supplies in the Lower Basin in the near term. We encourage you to complete the Final Environmental Impact Statement (FEIS) and Record of Decision prior to January 1, 2001.

Very truly yours,



Wayne E. Cook
Executive Director

5: The operational modeling for the Six States Alternative uses the 70R strategy after the 15-year interim period in this FEIS.

6: Please see response to Comment 37-11.

7: All studies have been made without consideration of periodic inflows into the Colorado River from the Gila River above Yuma, AZ. Gila River flows are infrequent and unpredictable. The RiverWare CRSS model is not currently set up to model Gila River flows; there was insufficient time to incorporate them into the model. The US Army Corps of Engineers has recently completed flow studies of the Gila River. Reclamation is reviewing this new data and will consider modeling the Gila River in future studies.

LOCAL AGENCIES

Letter #	Agency Name	Page #
33	City of Phoenix, Office of the City Manager	B-119
34	Grand County Council (Utah)	B-122

2 cont'd

The 70R strategy has been adequately analyzed in the DEIS because "modeling results from 70R strategy are very similar to the Flood Control Alternative, which is evaluated in the DEIS (described in Section 2.3.2). DEIS at 2-1. Adoption of the 70R strategy as the baseline in the FEIS will not require any major reworking of the data found in the DEIS.

3

California Colorado River Water Use Plan (4.4 Plan)

The DEIS states that the Secretary "may condition the continuation of interim surplus criteria for the entire period through 2015 on a showing of satisfactory progress in implementing the 4.4 Plan." DEIS at 1-22.

Phoenix urges the Secretary to explicitly recognize that the continued effectiveness of the Interim Surplus Criteria proposed in the Seven Basin States Plan is to be conditioned on continued progress by California towards implementation of its 4.4 Plan.

4

Transboundary Impacts

Section 3.16 of the DEIS contains a lengthy discussion of the "potential effects that extend across the international border below the NIB." DEIS at 3.16-1.

Phoenix does not believe that Reclamation's analysis of these potential impacts is warranted. Reclamation recognizes the tenuous nature of its analysis since the DEIS states that "the potential effects on Mexico's resources cannot be specifically determined due to the uncertainty of water use once it flows across the NIB into Mexico. The waters of the Colorado River, once delivered to Mexico, as agreed upon in the Mexican Water Treaty of 1944, are the exclusive property of Mexico. The treaty contains no provisions requiring Mexico to provide water for environmental protection, nor any requirements relating to Mexico's use of that water." DEIS at 3.16-1.

3: The selection of the Basin States Alternative as the preferred alternative incorporates the implementation of California's Colorado River Water Use Plan conservation progress. Proposed guidelines for this alternative are in Attachment I.

4: Comment noted. (See response to Comment 22-4.) In addition, CEQ guidance recognizes that there are concerns about the availability of information and agencies have a responsibility to undertake a reasonable search for relevant, current information.

Mr. Robert Johnson
Regional Director
Lower Colorado Regional Office
September 8, 2000
Page 3

Water Rights Settlements

5 The DEIS states that "under shortage, potential impacts to Indian CAP water users differ depending upon whether CAP water is allocated under settlement or without settlement." DEIS at 3.14-13. The same holds true for municipal, industrial and non-Indian agricultural CAP water users in Arizona.

Potential allocations to CAP water users and Indian tribes are the focus of interrelated settlements involving CAP operation and repayment and Indian water rights. Phoenix has previously commented regarding the impacts to CAP allocations with or without settlement. These comments to the Draft Environmental Impact Statement, Central Arizona Project, Allocation of Water Supply and Long-Term Contract Execution are hereby incorporated by reference. They are attached hereto as Attachment A.

Sincerely,

William L Chase

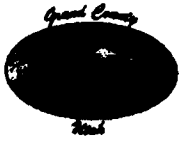
WILLIAM L. CHASE, JR.
Water Advisor

TB:cf/#105593
Enc.

5: Comment noted.

09/08/2000 12:18 4352592959 GRAND CO CLERK PAGE 02

Memo



Date: **September 8, 2000**

To: Ms. Jayne Harkins
Attention: BC00-4600

From: Grand County Council

Subject: Colorado River Interim Surplus Criteria

1 **This letter is in support of the "Seven State Proposal" for Interim Surplus Guidelines on the Colorado River.**

We feel this proposal will allow us to receive our allotted share of the Colorado River water while easing the burden on those states that are currently using in excess of their allotted share.

Thank you.

1: The preferred alternative in this EIS is derived from the Seven States Proposal. Reclamtion did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures.

STATE AGENCIES

Letter #	Agency Name	Page #
35	Arizona Power Authority (APA)	B-123
36	Arizona Power Authority (APA)	B-128
37	Arizona Department of Water Resources (ADWR)	B-130
38	Arizona Game and Fish Department (AG&FD)	B-136
39	Colorado River Board of California (CRBC)	B-141
40	California Regional Water Quality Control Board (CRWQCB)	B-142
41	Colorado Department of Natural Resources (CDNR)	B-144
42	New Mexico Interstate Stream Commission (NMISC)	B-146
43	Colorado River Commission of Nevada (CRCN)	B-148
44	Colorado River Commission (Nevada State Historic Preservation Office-NSHPO)	B-151
45	New Mexico Environmental Department (NMED)	B-154
46	Utah Department of Natural Resources, Division of Water Resources (UDNR, DWR)	B-155
47	Office of Federal Land Policy (Wyoming State Engineer's Office) (WOFLP)	B-157

Commission
RICHARD S. WALDEN
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MICHAEL C. FRANCIS
JOHN I. HUDSON

ARIZONA POWER AUTHORITY
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SEP 14 2000

Staff
JOSEPH W. MULHOLLAND
Executive Director
RITA K. GALLANT
Executive Secretary

BCOO4600
4600

Regional Director
Lower Colorado Region
U.S. Bureau of Reclamation
c/o Ms. Jayne Harkins
Attention BCOO-4600
P.O. Box 61470
Boulder City, Nevada 89006-1470
Fax Number (702) 293-8042

September 7, 2000

Re: Comments Upon the Colorado River Interim Surplus Criteria- Draft Environmental Impact Statement; 65 Federal Register 47516 (August 2, 2000)

Dear Ms. Harkins:

Please accept the following comments from the Arizona Power Authority (Authority) relating to the Draft Environmental Impact Statement for the Colorado River Interim Surplus Criteria. The Secretary of the Interior acting through the United States Bureau of Reclamation is considering adoption of criteria under which surplus water conditions may be declared in the Lower Colorado River Basin through the Year 2015. The purpose of the criteria is to ensure that the State of California returns to its proper allocation of 4.4 million acre feet of Colorado River water pursuant to the U.S. Supreme Court Decree in Arizona v. California and pursuant to Article III(3)(b) of the Criteria for Coordinated Long Range Operation of the Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act of September 30, 1968 (Long Range Operating Criteria).

The Arizona Power Authority (Authority) is a public power marketer charged under Arizona State laws with responsibility for taking and marketing the State of Arizona's allocation of 377 megawatts of hydroelectric power from Hoover Dam. The Authority markets the Hoover power to 31 entities including a number municipalities and electrical and irrigation districts throughout the State of Arizona.

The Authority submits the following comments on the Draft Interim Surplus Criteria EIS:

1 | Scope of Draft EIS- Integrated Resource Planning. The Authority notes that historically that water and power resource issues on the Colorado River have been analyzed and recognized as a concomitant pair. We are concerned here that the Draft EIS does not

1: Comment noted. Reclamation believes that the level of analysis for energy resources presented in the FEIS, Section 3.10, appropriately identifies the potential effects of interim surplus criteria.

adequately recognize or analyze power generation in implementing any of the four potential Interim Surplus Criteria Alternatives.

cont'd

For example Table 2-1 goes into extensive detail as to the impacts of the various four alternatives- yet dedicates only two short sentences to hydroelectric power production: ""Flood Control Alternative would be similar to baseline," and "average energy increase of <1% to 2015; decrease of 1% to 2035."

Indeed even the assumption of impacts in these two short sentences are at odds with the apparent impacts to hydroelectric power production as reflected in numerous Figures contained in Section 3.3 of the Draft EIS. The whole issue of hydroelectric power production needs greater consideration in the Draft EIS- especially since Hoover Dam power facilities play an integral role in the reliability of the power system's in the Southwest.

2

Impacts Upon Hoover Dam Hydroelectric Production. Modeled End-of-Calendar Year Lake Mead and Lake Powell Water levels Contained in Figure S-1 reflect potentially serious reductions in power production, particularly for Hoover Dam. See e.g. Figure 3.3-14 on page 3.3-27 which shows the median trend to lower elevations. Indeed that Chart reflects that the 35th Percentile Curve would approach Hoover Dam's Minimum Power Pool elevation of 1083 feet- i.e. Hoover Dam would produce no hydroelectric power at all.

3

Modeled vs. Actual Lake Mead Inflows and Impact of Drought Years. The Draft EIS bases much of its analysis of the Alternatives on "representative seasonal flows" as noted for example, on Figures 3.3-18 (a-d). The Authority is seriously concerned that the modeled flows do not comport with the actual historical unregulated flow data into Lake Mead

We have attached a chart to show the historical unregulated flow data and average flow into Lake Mead from 1968-1997. When reviewing the data several points become apparent. First we were in an above average inflow mode for 1996-1997. Second drought periods occur for extended multi-year periods such as from 1988 through 1993 when annual inflows reached as low as 40% of normal.

In extended drought periods it seems unfair from a water perspective not to suspend or alter the applicability of the Interim Surplus Criteria, so that California shares in the natural occurring impacts of the drought period too.

Next the actual inflow data calls into very serious question the assumption in the Draft EIS (noted above in Table 2-1) that through 2015 there will be an average increase in power generation of less than one percent. In fact, in extended drought periods of more than one year (which are common) the power generating capability of Hoover Dam may be seriously and significantly impaired under all of the Alternatives.

2: Comment noted. Figure 3.3-15 of the FEIS presents the probability for Lake Mead to be below 1,083 feet msl generated from DEIS modeling is approximately 42 to 43 percent (a 58 to 57 percent probability of avoidance) under baseline conditions and each of the alternatives during the final 15 years of analysis. As noted in Figure 3.3-15, Lake Mead water levels may fall below 1083 feet msl under modeled baseline and surplus alternatives. The interim surplus criteria has the potential to draw down the Lake Mead water levels earlier but to the same levels as the baseline conditions.

3: The hydrology data used to model the operations of the Colorado River under baseline conditions and the surplus alternatives were developed using Reclamation's historic Colorado River flow measurement data, in combination with estimates of historical depletions. The resulting natural flow data represents an estimate of the flows that would have existed without storage or depletion by man. This is different than the recorded historical stream flows that represent actual measured flows. The system of measurement and adjustment for natural flows that Reclamation used for EIS analyses represents the best available information. Sections 3.3.2 and 3.3.3 discuss natural runoff and modeling of future hydrology. It is anticipated that Lake Mead water levels and Hoover Powerplant production will be affected by the conditions modeled under the baseline conditions and surplus alternatives. The relative differences in potential impacts as presented in Sections 3.3 and 3.10 are the impacts that need to be considered as being associated with the implementation of the interim surplus criteria, under the respective surplus alternatives.

Hoover Dam Lynchpin Reliability Role in Western State Power Systems. The maximum rated capacity of Hoover Dam is 2074 Megawatts. However Hoover Dam's power capacity plays an essential role in western state power systems far beyond simply the 2074 Megawatts it can produce. That role is system reliability, stability, and support. Power systems require a certain amount of power generating capacity to be held in reserve for immediate activation should any of the generators currently producing power into the system fail or shut down for any reason. Without adequate reserve capacity, failure of one generator tied into the system can quickly produce a chain reaction and cause additional generators attached to the system to fail and create a region wide blackout.

In order to prevent such a regional power failure, the regional system needs significant reserve generation that can be called on immediately to replace the failed generator. This reserve capacity is best provided by facilities with flexible response capabilities. Hoover Dam serves this function in the western regional power system. In a matter of minutes Hoover Dam can provide 2074 Megawatts of clean hydroelectric power to fill the gap and cover the problem in the grid. In addition Hoover's power can move effectively to the problem area since Hoover is connected to the Mead Substation- a major electric substation south of Boulder City from which transmission lines fan out all across the western U.S. In that sense Hoover Dam with its immediate ramping capability and massive transmission system links is a critical lynchpin that assures the reliability within the western states power grid.

Note that for the foreseeable future there is no alternative power source to replace Hoover's unique ability to respond to disturbances in the system. For example coal-fired or nuclear generating facilities have little capability to respond like Hoover. They run best at a flat rate of output. Thus they can not economically serve in a system reliability role. Gas-fired generation may be used in a peaking function- assuming however that (1) that capacity is available and (2) transmission lines are installed to those facilities in order to move that power to the problem area.

However perhaps due to high natural gas prices and lack of water resources for cooling only a few plants have been permitted and less are actually under construction. The little additional power capacity that these plants will add to the total electric system will quickly be swallowed up by growing demand of cities and industry for power. Thus there appears to be no gas-fired capacity under construction that could serve in a peaking capacity and replace lost Hoover capacity. The potential loss of the Hoover resource would place the western power system already low in reserve capacity into a dangerous situation. 4

Impact Upon Authority Power Customers. The Authority delivers Hoover power to 31 Irrigation and Electrical Districts within the State of Arizona. For many districts the Hoover power is the primary source of electrical power. Thus these Districts' agricultural, residential, and industrial users will be impacted either by reduction in available power, or in the significant costs to purchase replacement power in a market where power resources are growing more difficult to obtain at reasonable prices. 5

4: Section 3.10.2.3 includes a discussion of generation ancillary services, which include peaking power. A large portion of the potential losses is included in baseline conditions.

5: See response to Comment 16-2. Impacts to individual power customers is beyond the scope of analysis in the EIS. Reclamation believes that the level of analysis for energy resources presented in the EIS appropriately identifies the potential effects of interim surplus criteria.

Hoover Dam Power Generation and Impact Upon Water Use. A 500 megawatt gas-fired power plants requires anywhere from 4,000,000 to 7,000,000 gallons of water for its cooling system and discharges 20% of that water daily. Thus if the 2074 Megawatt Hoover resource were removed from the marketplace, then four additional 500 Megawatt gas fired facilities would be required in order to replace both Hoover's capacity and its reliability role.

6 Those four generation facilities would cumulatively require an additional 16,000,000 to 28,000,000 gallons of water usage. I note this because water prices in Arizona and adjacent states have risen to the level where gas-fired power plants' economics are becoming marginal at best. That is, the availability of the Hoover resource if impaired- is in question. The reliability role of Hoover Dam could be instead lost to the western grid- a very serious issue for the foreseeable future with power reserve margins dropping throughout the West.

Summary. The Authority encourages the Bureau of Reclamation again to analyze the Draft EIS Alternatives and the data assumptions underlying them as to the power issues. Water and power resource management should be approached in the Draft EIS in an integrated fashion as has traditionally been done along the Colorado River. In solving water issues in the State of California, the current plans may be simultaneously creating equally serious power resource issues for the western region.

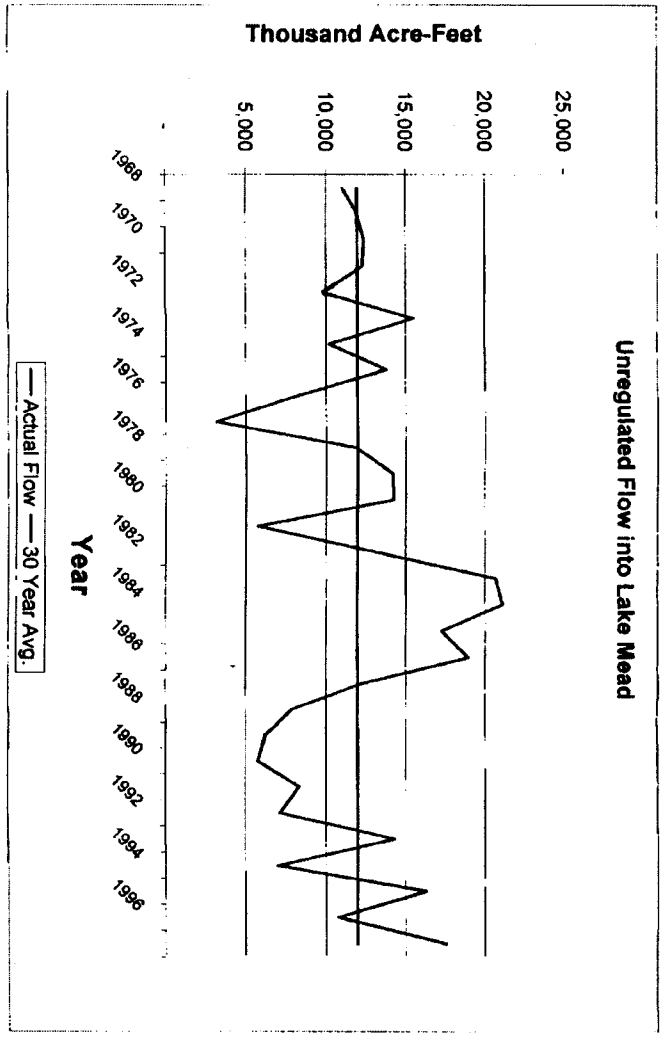
Sincerely,

Attachment

Douglas V. Fant

Mr. Douglas V. Fant
Associate legal Counsel
Arizona Power Authority

6: Comment noted.


Thousand Acre-Feet
5,000
10,000
15,000
20,000
25,000
1968
1970
1972
1974
1976
1978
1980
1982
1984
1986
1988
1990
1992
1994
1996
Year
Actual Flow
30 Year Avg.
Unregulated Flow into Lake Mead

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Staff
JOSEPH W. MULHOLLAND
Executive Director
RITA K. GALLANT
Executive Secretary

September 9, 2000

Via Fax and Mail

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Regional Director
Lower Colorado Region
U.S. Bureau of Reclamation
c/o Ms. Jayne Harkins
Attention BCOO-4600
P.O. Box 61470
Boulder City, Nevada 89006-1470
Fax Number (702) 293-8042

Re: Comments Upon the Colorado River Interim Surplus Criteria-Draft Environmental Impact Statement; 65 Federal Register 47516 (August 2, 2000)

Dear Ms. Harkins:

Please accept the following comments from the Arizona Power Authority (Authority) relating to the Draft Environmental Impact Statement for the Colorado River Interim Surplus Criteria. The Secretary of the Interior, acting through the United States Bureau of Reclamation, is considering adoption of criteria under which surplus water conditions may be declared in the Lower Colorado River Basin. The purpose of the criteria is to ensure that the State of California returns to its proper allocation of 4.4 million acre feet of Colorado River water pursuant to the U.S. Supreme Court Decree in Arizona v. California and pursuant to Article III(3)(b) of the Criteria for Coordinated Long Range Operation of the Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act of September 30, 1968 (Long Range Operating Criteria).

The Authority is a public power marketer charged under Arizona State law with responsibility for taking and marketing the State of Arizona's allocation of 377 megawatts of hydroelectric power from Hoover Dam. The Authority markets its Hoover power to 31 Arizona entities including municipalities, electrical and irrigation districts and the Central Arizona Project.

Regional Director
September 8, 2000
Page 2

The Authority submits the following comments on the Draft Interim Surplus Criteria EIS:

1 The draft EIS extends the National Environmental Policy Act (NEPA) analysis into Mexico. We believe that such an extension is not required by law and raises the question as to why a different approach is being taken in the Multi-species Conservation Program (MSCP). The existence of a Treaty under which the Republic of Mexico has total control over any water passing into Mexico makes such an extension meaningless. We are particularly concerned that a similar extension will be made with the Endangered Species Act (ESA). The Supreme Court has clearly stated that the extraterritorial application of statutes is proper only when the terms of the statute clearly evidence the intent of Congress to apply the statute in foreign countries. Neither NEPA nor the ESA contain evidence of such intent. If protection of species in the Colorado River Delta is to be accomplished by altering the existing accord between the United States and Mexico, that should be accomplished by a modification of the Treaty through negotiations between the State Department and its counterpart in the Mexican government.

2 On a different point, we recognize that attention has been given to certain impacts on power generation. It is important that power resource issues continue to be addressed and we look forward to cooperating in that effort.

Thank you for an opportunity to submit comments on behalf of the Authority.

Very sincerely,

Joseph W. Mulholland
Executive Director

JWH/jb

1: See responses to Comments 22-4 regarding NEPA analysis and Comment 22-10 regarding ESA application in Mexico. The MSCP is a regulatory program to address ongoing and proposed actions within the U.S.

2: Comment noted. Reclamation is pleased to work with any of the customers on resource issues.

ARIZONA DEPARTMENT OF WATER RESOURCES
500 North Third Street, Phoenix, Arizona 85004
Telephone 602-417-2410
Fax 602-417-2415

JANE DEE HULL
Governor
RITA PEARSON MAGUIRE
Director

September 8, 2000

SEP 11 2000

SENT VIA FACSIMILE TO 702-293-8042

BCOO1000
4600

Regional Director
Lower Colorado Region
Attn: Jayne Harkins, LC-4600
Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

Dear Ms. Harkins:

The Arizona Department of Water Resources (ADWR) submits the following comments on the Draft Environmental Impact Statement (DEIS) for Colorado River Interim Surplus Criteria dated July 7, 2000. By statute, ADWR is the state agency within Arizona that is authorized and assigned the responsibility to consult, advise and confer with the Secretary of the Interior regarding matters dealing with the operation of the mainstem of the Colorado River. These comments supplement previous oral comments made on behalf of ADWR at the Bureau's public hearing held in Phoenix on August 25, 2000.

ADWR has been involved in discussions with representatives of the Colorado River Basin States and the Ten Tribes Partnership for several years. Our position regarding Colorado River reservoir management has consistently reflected that any operating criteria adopted by the Bureau must be technically feasible and legally consistent with the Law of the River, and must also be fair and objective. If there is a category of users who receive particular benefits from the proposed interim surplus criteria, then that benefit must not be realized at the expense of, or to any detriment of others. We, of course, are particularly concerned in this instance. At the present time, Arizona has the least need for use of surplus water. Arizona also faces the great risk when shortages occur because of the lower priority held by the Central Arizona Project (CAP) contractors and other post-1968 Arizona water contractors. This set of circumstances requires ADWR to take a fairly conservative viewpoint toward surplus operating criteria.

Purpose and Need for Action

The DEIS states that the purpose and the need for the proposed action is to provide more specific criteria for the Secretary to make his annual determination of the condition of the River as required by the Long Range Operating Criteria. If this was the primary purpose of the proposed action, then specificity could easily be obtained by adopting the spill avoidance methodology

1 described in the Bureau's 1986 Special Report entitled Alternative Operating Strategies for Distributing Surplus Water and Avoiding Spills. Arizona has supported the use of the "70R" spill avoidance strategy as a surplus criteria for many years. However, it is clear that the primary purpose for the interim criteria is to provide additional water for California water users during the 15-year period while they are implementing their California Water Use Plan.

California water users made a conscious and risky decision to build a reliance on water above their basic apportionment of 4.4 maf when they negotiated the Seven Party Agreement. By that Agreement, the Metropolitan Water District (MWD), who delivers municipal and industrial (M&I) water to the Southern California Coastal Plain, faces the risk of having its supply cut nearly in half if the Secretary determines that California is entitled to only its basic annual apportionment. A severe cutback in M&I supplies would potentially create an unacceptable economic disruption in Southern California. But it must also be recognized that California has received considerable economic benefits from the risk they took because they have been able to receive and use water in excess of their basic apportionment for several decades. The time has come for California to live within their basic apportionment and substantially reduce their water demands from the Colorado River.

ADWR believes that California water users have a variety of water conservation and market mechanisms available to them that will allow them to reduce their water demands, but undoubtedly those options will take some time to implement and will be expensive. The use of interim surplus water will provide a period of time to cushion that economic and financial impact. Because the implementation of interim surplus criteria is designed to deal with the issue of avoiding impacts to Southern California M&I water users, any criteria must recognize that the problem to be solved is specific and the criteria short term. When the time comes for the Secretary to limit Lower Basin deliveries to their basic apportionment, Arizona fully expects him to carry out his obligation as water master, even if that action would create negative economic impacts in Southern California.

Seven Basin States Proposal

Independent of the Bureau's ongoing planning process, representatives of the seven Colorado River basin states have been holding discussions to reach a mutual agreement on terms for interim operating criteria. The seven states have recently completed a "Working Draft for Interim Surplus Criteria Guidelines" which we presented to the Bureau for consideration. ADWR believes that this document describes the best possible set of criteria for meeting California's needs while protecting the rights and interests of others. We believe that the Seven Basin States Proposal falls well within the scope of the DEIS since it is very similar although clearly not identical to the Six States Alternative. Assuming that all of the remaining related
2 issues concerning California's commitments to its Quantification Agreement and California Water Use Plan are resolved, Arizona will be prepared to work with the other states and the Bureau to finalize this proposal. We would then urge the Secretary to adopt the Seven Basin States Proposal as the Preferred Alternative in the Final Environmental Impact Statement (FEIS).

Arizona believes that its participation in formulating a consensus Basin States proposal is fully consistent with Secretary Babbitt's policy. In his December 17, 1998 speech before the Colorado River Water Users Association he stated:

1: As discussed in the purpose and need, the purpose is to provide "a greater degree of predictability" of when surplus water is and is not available. Reclamation agrees that the spill avoidance methodology of 70R would meet the purpose and need of the proposed action. Reclamation agrees that interim surplus criteria would complement California's efforts to reduce its water use.

2: The preferred alternative in this FEIS is derived from the Seven States Proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures.

"As to the substance of the surplus guidelines, I am aware of the proposal prepared by six of the seven basin states dated December 4th. On this issue, as on others, I reiterate my preference that all the basin states search for a recommendation on which they can agree. In light of California's needs, and the restrictions relating to surplus in Article II(B)2 of the Supreme Court decree in *Arizona v California*, it would be particularly helpful for California to engage with the other basin states in an effort to find common ground. The time is now right for California and the other states to work together to negotiate surplus guidelines that will adequately recognize the achievement implicit in the steps California is taking in reducing its reliance on Colorado River water by providing assurances that Met's aqueduct can remain full during the intensive period of conservation that lies ahead."

We believe that the Seven Basin States Proposal does exactly what Secretary Babbitt requested. It is a very specific proposal and was carefully and purposefully negotiated. We recognize that the Bureau, using the NEPA planning process, is obligated to give consideration to a variety of factors. As with any work product, there is probably room for improvement. However, ADWR wants to caution you against making significant or substantive changes or we may need to withdraw our support for the consensus proposal. In particular, the provision that requires the 3 Secretary to terminate the guidelines in the event California has not implemented conservation measures to reduce its demand for surplus by certain milepost dates must be included. This requirement must be non-discretionary. We note with concern that the DEIS (§S.2.6) describes a 4 similar requirement for demonstrating progress with the term "may be contingent" rather than the term "shall terminate." It is equally critical that the Secretary agrees that the surplus criteria guidelines will revert to the "70R" baseline when the interim criteria terminate.

Planning Process

ADWR has been an active participant in numerous Bureau planning programs over the years. In this case, the Bureau chose to fully integrate its planning effort into its NEPA review process. From our perspective this approach has been deficient. Aside from the reduced amount of time it will take to reach a decision, this process has generally been a step backward by the Bureau in terms of public participation and involvement in the planning process. While a series of DEIS 5 scoping meetings were conducted, those meetings were very general and did not provide adequate opportunities to interact with the Bureau's planning team. The outcome of this process is that Bureau planners developed a series of inadequately developed and poorly explained alternatives for presentation in the DEIS. As the Bureau moves forward to complete its FEIS, we hope that the process will be more inclusive when refining the alternatives under consideration and the assumptions used in the modeling and baseline condition analysis. Most important, the Basin States must have adequate opportunity to present and explain the intent and ramifications of statements contained in the Seven Basins States Proposal.

Other Comments

- A surplus methodology of 75R was used as the baseline when 70R has been the standard in 6 terms of discussions of surplus criteria. The FEIS should be changed to reflect 70R-spill avoidance strategy as the baseline surplus criteria.

3: Please see response to Comment 33-3.

4: Upon termination of the interim surplus criteria the Secretary's procedure for determining surplus, normal, or shortage conditions would revert back to the AOP process, in which numerous factors are considered as discussed in Chapter 1. While the 70R strategy is mathematically convenient as a representation of the baseline, it is only one of the factors considered by the Secretary in the AOP process.

5: Reclamation appreciates the willingness of state and local agency representatives to participate in a dialogue on the interim surplus criteria during the NEPA process. This has been of assistance in compiling water demand projections and other operational aspects for the analysis.

6: The 70R strategy is used for the baseline in this FEIS. For more information, see response to Comment 57-11.

As stated on page 2-1, "The 70R strategy was eliminated from consideration as an alternative in this DEIS because modeling results from 70R strategy are very similar to the Flood Control Alternative, which is evaluated in this DEIS." This rationale is not sufficient justification to eliminate a strategy that has been used for many years as a baseline for surplus criteria. The proof that 70R has been used as the baseline before the publication of this DEIS is stated unambiguously on page 2-5, "Reclamation has utilized a 70R strategy for both planning purposes and studies of surplus determinations in past years."

6 cont'd

Also, on page 2-5, the DEIS states, "When Reclamation reviewed previous surplus determinations as part of this DEIS effort, the data indicated that the 1997 surplus determination did not precisely fit the 70R strategy. Therefore, in an attempt to characterize recent operational decisions in a manner that could be modeled for baseline purposes, Reclamation determined that a 75R strategy would provide a more accurate representation of "no action" than a 70R strategy." There is no explanation for the selection of the 1997 surplus determination as the representative year that characterizes recent operational decisions. We do not believe that 1997 was a representative year. Furthermore, we dispute the contention that the intent of the surplus decision was to change the 70R criteria as the baseline. 70R should be the baseline assumption for analysis purposes in the FEIS.

The DEIS also states on page 2-5, "While the 75R strategy is used to represent baseline conditions, it does not represent a decision by Reclamation to utilize the 75R strategy for determination of future surplus conditions." Arizona strongly agrees with this decision and would not support the use of the 75R strategy to determine future surplus conditions merely because this strategy was used as the "no action" baseline for this DEIS. We strongly suggest that 70R be used as a baseline and thereby avoid creating any erroneous future expectations.

7

The descriptions of both the assumed baseline 75R criteria and the Flood Control Alternative indicate that once a threshold determination is made, a surplus is declared. The surplus volume is apparently unquantified and water is made available to all by contractors for surplus water. We believe that such an approach, even if it has been past practice, is inconsistent with the intent of Section II(B)(2) of the *Arizona v California* decree. It is the intent of the decree that the Secretary determine a volume of water available for surplus and then distribute that water 50% to California, 46% to Arizona, and 4% to Nevada. The Bureau's method circumvents that process. By simply requesting a supply greater than half of the overall demand, California would receive more than its legal share of surplus. We believe the DEIS, and the Bureau's current practice, need to be revised to recognize the restrictions relating to surplus in Article II(B)(2) of the Supreme Court decree.

8

The proposed Six States Alternative is based on the document dated December 4, 1998 presented in Attachment D. As one of the participants in the development of the Six State paper, ADWR questions why the Bureau did not adopt that proposal as it was presented, rather than making modifications to it. For example, the Six States paper uses a surplus tier based on a 70 R strategy, but the Bureau alternative changed that tier to 75 R. (Although the Draft Guideline presented in Attachment H refers to the 70th percentile runoff not the 75th percentile.) In preparing the guidelines for the Six State Alternative the volume of surplus under two of the tiers appear to be inconsistent with the volumes that were modeled using the

7: Reclamation and the Department agree that the determination of surplus must be consistent with Article II(B)(2) of the Decree in Arizona v. California. The assumption that the Baseline and Flood Control Alternative declare a "full surplus" (unquantified surplus), reflects the fact that the system is relatively full under those conditions.

8: Reclamation used the 75R strategy for the upper tier of the Six States Alternative and for the period of analysis after the end of the interim period. Because 75R was selected as the baseline, Reclamation was concerned that the use of 70R as presented in the Six States Proposal would introduce inconsistencies into the modelling and compromise the results. In as much as 70R is being used for the baseline in this FEIS, the descriptin of the Six States Alternative will include 70R operation as initally proposed by the States. The inconsistencies in descriptions have been corrected.

8 cont'd | tables in Attachment G. This inconsistency leads us to question if the Bureau has accurately evaluated this alternative.

9 | • The Shortage Protection Alternative, described beginning on page 2-13, should not have been included as an alternative, because it is an inappropriate operating mode for the reservoir. Operating the reservoir under these criteria would provide an excessive amount of surplus water to California at the expense of the junior water right holders in Nevada and Arizona. It would be irresponsible to use such a mode of operation where the benefits to the Lower Basin states would be so inequitable.

10 | • Upper Basin depletions were based on 1996 projections, as stated under Common Modeling Assumptions on page 3.3-9. More recent projections are available and should be used in the FEIS if possible. Current depletion data should be incorporated into the model because actual reservoir elevations from January 1, 2000 are used.

11 | • The DEIS states on page 3.3-9 that the baseline No Action Alternative and the Flood Control Alternative did not include the implementation of the California 4.4 Plan. Some water transfers have been agreed to, including the IID to MWD transfer 1988 agreement. Any water transfers that are completed should be included in the assumptions.

12 | • The Lower Basin depletion schedules shown in Attachment G do not coincide with the most recent schedules being used in modeling efforts by the Basin States, including the schedule for Normal conditions with the California transfers. Under the most recent version of the Seven Basin State Proposal as published in the federal register, MWD's demand during the interim period for a Full Domestic Surplus should be 1,250 kaf instead of 1,212 kaf.

13 | • As stated on page 3.4-5, "The CAP shortage condition depletion schedule used for the analysis remains constant at 1.0 maf over the period of analysis. Additionally, there will also be other shortage condition reductions that affect CAP priority contractors that use water directly from the Colorado River. This quantity is not quantified; however, normal year supplies could be reduced by as much as 35 percent." This is an incorrect description of the Arizona supply during a shortage year. Under the current modeling method, which limits the CAP supply to 1.0 maf, the shortage applies equally to the CAP supply as well as to the on-river Priority 4 water users. Therefore, the Arizona supply to all Priority 4 users would be limited to 1.0 maf, without additional reductions applied to on-river contractors. As a clarification, the shortage year supply could be reduced from a normal year supply by as much as 35%. Under the Seven Basin State Proposal, the total Arizona supply would be reduced to 2.3 maf, as described above.

14 | • The DEIS projects that the interim period ends in 2015. The Seven Basin States Proposal assumes the end of the interim period is 15 years after it begins. Given the timing of implementation of the record of decision for this EIS and the schedule of completion for the California Quantification Agreement, it more likely that the interim period will start in 2001 and end in 2016.

15 | • ADWR believes the Bureau has mis-characterized and therefore incorrectly analyzed the potential impacts of shortages on CAP Indian Trust Assets in Section 3.14.3. The Record of

9: Comment noted. Reclamation formulated the Storage Protection Alternative as an approximation of the maximum amount of surplus water that could be determined during the interim period, while maintaining a certain amount of water in storage for protection against future shortages.

10: Revised depletion schedules provided by the Basin States were used in analyses for the FEIS. See response to Comment 14-10 for more detail.

11: For the FEIS, intrastate transfers were considered and modeled in all five surplus alternatives that were evaluated in the FEIS. This includes the 1988 IID/MWD agreement. The baseline (No Action) conditions were modeled with and without the transfers. A sensitivity analysis comparing a baseline with and without transfers to the Seven Basin States alternative, was conducted to evaluate the sensitivity of the transfers. Please see Appendix L of the FEIS for the results of this sensitivity analysis and Section 3.4 for the results of the water supply analysis.

12: Revised depletion schedules provided by the Basin States were used in analyses for the FEIS. See response to Comment 14-10 for more detail. The Lower Division depletion schedlues are Attachment H of the FEIS.

13: See response to Comment 14-11 regarding Arizona shortages.

14: The interim surplus criteria alternatives under consideration would be used in years 2001 through 2015 to make surplus determinations for the next year. Thus, water deliveries in years 2002 through 2016 would be subject to interim surplus criteria. Discussion has been added to Chapter 2 of the FEIS to provide clarification.

15: ADWR's comment is noted. ADWR and Reclamation have a rather longstanding difference of opinion regarding shortage impacts on CAP. Under the GRIC Settlement, it is hoped that a resolution of this disagreement may be reached. The disagreement is over which priority takes a reduction first; the CAP fourth priority (M&I water greater than 510,000 AF) or the CAP third priority requiring a reduction of 25 percent of GRIC agricultural water and 10 percent of other CAP Indian agricultural water.

15 cont'd

Decision Dated February 10, 1983 issued by Secretary of the Interior James Watt describes the shortage sharing provisions as follows:

> "During years of water supply shortages, Indian users and non-Indian M&I uses would share a first priority on project water supplies. Depending upon severity of shortages, miscellaneous uses would be reduced pro rata until exhausted; next, non-Indian agricultural uses would be reduced the same way until exhausted; next 25 percent of the Gila Tribe allocation and 10 percent of the irrigation amount allocated to Indian contractors other than the Gila Tribe would be reduced pro rata until exhausted. Finally, the remaining water contracted for by 11 Indian entities under existing contracts and 75 percent of the Gila Tribe allocation would share a priority with 510,000 acre feet of non-Indian M&I uses ...and would be reduced on a proportional basis, and within each class on a prorated basis, based on the amount of water actually delivered to each entity in the latest non-shortage year."

While this ROD language, which is incorporated by reference in CAP M&I subcontracts, clearly describes the order in which reductions should take place, the Bureau's description of the priority system in the DEIS includes a fourth priority that reduces M&I to 510,000 acre feet before requiring the reduction by 25% to GRIC agriculture and 10% to the other tribes agriculture. The DEIS needs to be corrected to reflect that CAP third and fourth priorities have been reversed. In addition, the proposed GRIC settlement contains a provision that would modify the shortage sharing formula. Since the DEIS describes the CAP water supply conditions if the GRIC settlement is included, that description should be based on the new shortage sharing formula.

ADWR looks forward to working with the Bureau to complete the planning process leading to the implementation of the Interim Surplus Guidelines of the Colorado River. If you have any questions regarding our comments, please contact Herb Dishlip at 602-417-2440.

Sincerely,

Rita Pearson Maguire
Director

RPM:tjm

AUG-31-2000 16:48 P.02/06

THE STATE OF ARIZONA
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August 31, 2000

Mr. Robert W. Johnson
Regional Director
ATTN: Jayne Harkins (LC-4600)
U.S. Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

Re: Draft Environmental Impact Statement for the Colorado River Interim Surplus Criteria

Dear Mr. Johnson:

The Arizona Game and Fish Department (Department) has reviewed the "Draft Environmental Impact Statement, Colorado River interim Surplus Criteria," dated July 2000. Comments of the Arizona Game and Fish Department are based on the following provisions of Arizona law:

> "Wildlife, both resident and migratory, native or introduced, found in this state except fish and bullfrogs impounded in private ponds or tanks or wildlife and birds reared or held in captivity under permit from the commission [Arizona Game and Fish Commission], are property of the state and may be taken at such times, in such manner, and with such devices as provided by law or rule of the commission." (Arizona Revised Statutes § 17-102)

> "The laws of the state relating to wildlife shall be administered by the game and fish department. Control of the game and fish department is vested in the game and fish commission." (Arizona Revised Statutes § 17-201)

> "The [Arizona Game and Fish] Commission shall:"
> "2. Establish broad policies and long range programs for the management, preservation and harvest of wildlife."
> (Arizona Revised Statutes § 17-231)

The Arizona Game and Fish Department, therefore, has a trust responsibility for all fish and wildlife within the territorial jurisdiction of the State of Arizona.

AN EQUAL OPPORTUNITY REASONABLE ACCOMMODATIONS AGENCY

AUG-31-2000 16:49 P.03/06

Mr. Robert W. Johnson
August 31, 2000
2

Further, on October 16, 1987 the Arizona Game and Fish Commission formally adopted the following policy, titled "Riparian Habitat", in open public session:

> "It is the policy of the Arizona Game and Fish Commission that the Department shall recognize riparian habitats as areas of critical environmental importance to wildlife and fisheries. The Department shall actively encourage management practices that will result in maintenance of current riparian habitat, and restoration of past or deteriorated riparian habitat...."

The Department is the state wildlife agency for the purposes of consultation by Federal agencies pursuant to provisions of the Fish and Wildlife Coordination Act (16 USC 662 *et seq.*)

1 The Department is concerned about the limited geographic scope of the discussion of effects of the alternatives to aquatic resources and special status species. The analysis should be revised to be complete, including analysis of affects to angling throughout the project area. If impacts to aquatic or special status species are identified after additional analysis, measures to mitigate those impacts should be included. Page specific comments are included herein as an attachment.

We appreciate the opportunity to comments on the referenced document. If you have any question please contact Mr. Bill Werner at 602-789-3607.

Sincerely,

Duane L. Shroufe
Director

DLS:ww

attachment

1: Potential effects on special-status species that could occur between Hoover Dam and the Southerly International Boundary have been included in Section 3.8 of the FEIS. Potential effects on sport fisheries from potential changes in the temperature of water released from Hoover Dam has been developed and included in Section 3.7.3 of the FEIS. No specific mitigation measures are considered necessary for the impacts identified. However, Section 3.17 has been added to the FEIS to discuss environmental commitments.

AUG-31-2000 16:49 P.04/06

Attachment
Arizona Game and Fish Department
Specific Comments By Page
Draft Environmental Impact Statement
Colorado River interim Surplus Criteria, dated July2000.

Page 3.2-1, Section 3.2, paragraph 3

2 The southerly boundary is described as the Northerly International Boundary. It is not clear why this point on the river is used instead of the Southerly International Boundary at San Luis. If the international boundary along the river is generally the 1972 centerline alignment between the Northerly and Southerly International Boundaries, a significant amount of riparian vegetation, including vegetation providing habitat for the Southwestern willow flycatcher, occurring in the United States, may not have been included in the analysis.

2: The area of potential effect has been expanded for the FEIS to include consideration of the Colorado River 100-year floodplain to the Southerly International Boundary. Potential effects on special-status species have been included in the FEIS in Section 3.8.

Page 3.3-33, Map 3.3-1

3 "Bil Williams" should be Bill Williams.

3: This change has been made.

Page 3.3-35, Figures 3.3-18 a-d

4 The heading "Colorado River Seasonal Flows Downstream of Havasu NWR" is not consistent with the location shown on page 3.3-33, Map 3.3-1 for "3. Colorado River at Havasu NWR." The downstream end of Havasu NWR is in Lake Havasu itself. The location marked on Map 3.1 is about at the upstream end of Havasu NWR. The location for which the modeling was completed should be clarified.

4: The headings on Figures 3.3-18a to 3.3-18d are correct. The respective river location shown on Map 3.3-1 has been corrected.

Page 3.3-41, Section 3.3.4.5.3, paragraph 3

5 The description that

> "The river location that was modeled for this reach is located immediatcly downstream of the Palo Verde Irrigation District."

is not consistent with the location shown on Map 3.3-1 which shows the point just below Palo Verde Diversion dam, at the upstream end of the District. Again, the location for which the modeling was completed should be clarified.

5: The subject river location modeled is immediately downstream of the Palo Verde Diversion Dam. The text has been revised to reflect this location.

Page 3.6-7, Section 3.6.1.3

6 An explanation should be included of what infrastructure of the Wellton-Mohawk Irrigation and Drainage District has been damaged by historic flood flows on the Colorado River. Such infrastructure is more likely impacted by Gila River flood flows.

6: The description of the affected environment in the reach from Parker Dam to Laguna Dam has been corrected by deleting discussion of the Wellton-Mohawk Irrigation and Drainage District facilities. These facilities are not subject to damage from flooding on the Colorado River.

AUG-31-2000 16:49 P.05/06

AGFD Attachment
August 31, 2000
2

Page 3.7-1, Section 3.7.1

It is not clear why the analysis of impacts to aquatic resources is limited to:

> "...potential effects to Lake Mead and Lake Powell aquatic species habitat and potential effects to sports fisheries on Lake Powell and Lake Mead."

7

when the geographic area is described on page 3.2-1:

> "...the northern limit of the potentially affected area under consideration in this DEIS is the upper reaches of Lake Powell. The southern limit is the Northerly International Boundary (NIB) between the United States and Mexico."

Effects of the alternatives throughout the area described above should be analyzed and discussed. Without such analysis and discussion impacts to Arizona trust resources may not have been addressed.

8

Page 3.7-2, paragraph 4

"Uupper Basin" should be Upper Basin.

Page 3.7-8, Section 3.7.3.3.2

The statement that:

9

> "The primary sportfish in the Colorado River is rainbow trout."

is in error when the project area is the upper end of Lake Powell to the Northerly International Boundary. Clearly warm water species such as largemouth bass and catfish are found in significant numbers below Hoover Dam. Warm water species in that area are important to many anglers from Arizona, Nevada, and California.

Page 3.8-1, Section 3.8.1

It is not clear why

10

> "...the section addresses only special status species associated with Lake Powell, Lake Mead, the Lower Grand Canyon along the Colorado River, and the lower Virgin River."

when the geographic area is described on page 3.2-1:

> "...the northern limit of the potentially affected area under consideration in this DEIS is the upper reaches of Lake Powell. The southern limit is the Northerly International Boundary (NIB) between the United States and Mexico."

7: Although the area of potential effect of interim surplus criteria extends from Lake Powell to the SIB (NIB in DEIS), the resource analysis focuses on more limited areas within the area of potential effect to address specific issues identified as having the potential to be affected by interim surplus criteria. As discussed in response to Comment 38-1, an additional issue associated with sport fisheries and sport fishing has been included in the FEIS.

8: This correction has been made in the FEIS.

9: As discussed in Section 3.7.3 of the DEIS, the section addresses sport fisheries in Lake Powell and Lake Mead only. For the FEIS, additional information regarding sport fishing and the potential effects of interim surplus criteria on the temperature of water released from Hoover Dam and associated effects on sport fishing in the lower Colorado River between Hoover Dam and Lake Mohave has been added to Section 3.7.3. Reclamation has determined that fluctuations in flows below Hoover Dam to the SIB under the alternatives would be within the historical operating range of the river and would, therefore, not affect aquatic resources within this segment. Note also that the statement "the primary sport fish in the Colorado River is the rainbow trout" has been removed.

10: The analysis of effects to special-status species has been revised to include discussion for species that may occur in the potentially affected area from Lake Powell downstream to the SIB.

AUG-31-2000 16:50 P.06/06

AGFD Attachment
August 31, 2000
3

Page 3.9-34, Section 3.9.5

11 Affects to all fishing in the project area should be addressed not just reservoir fishing. This is a serious issue to the Department.

DIST-1

It is not clear what agency:

12 "AZ Department of Fish and Wildlife Service"

refers to. In Arizona, the state wildlife agency, as defined in statute, is the Arizona Game and Fish Department.

11: Reclamation has determined that recreation (including sport fishing) within the river corridor between Glen Canyon Dam and Lake Mead would continue to be addressed through the Adaptive Management Program and would, therefore, not be affected by interim surplus criteria (discussion of this Adaptive Management Program as it relates to sport fishing and recreation has been added to Sections 3.7.3 and 3.9.5 of the FEIS). As stated in Section 3.7.3, it is believed that minor changes in water temperature below Hoover Dam are not expected to adversely affect fish populations. Reclamation has determined that fluctuations in flows below Hoover Dam to the SIB under the alternatives would be within the historical operating range of the river and would, therefore, not affect sport fishing within these areas.

12: The Distribution List has been corrected to read "Arizona Game and Fish Department."

TOTAL P.06

STATE OF CALIFORNIA - THE RESOURCES AGENCY
GRAY DAVIS, Governor
COLORADO RIVER BOARD OF CALIFORNIA
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TRANSMITTED VIA FACSIMILE & US MAIL

September 8, 2000

SEP 11 2000

Mr. Robert W. Johnson
Regional Director
Lower Colorado Region
Attn: Jayne Harkins, LC-4600
Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

Re: Comments on Colorado River Interim Surplus Criteria
Draft Environmental Impact Statement - July 2000

Dear Mr. Johnson:

The following comments supplement the comments submitted by the Colorado River Board in its letter dated June 29, 1999.

The Colorado River Board of California (CRB) wishes to recognize and appreciates the enormous amount of effort and time that has been expended to date by the Department of the Interior, especially Deputy Secretary David Hayes, and the staff of the Bureau of Reclamation's (Reclamation) Lower Colorado Region office in facilitating the development of the interim surplus criteria for the Lower Colorado River among the various parties and stakeholders. As you are aware, California is committed to implementing its proposed "Colorado River Water Use Plan" dated May 11, 2000 (Plan). Interim surplus criteria for the Lower Colorado River is a vital component of the Plan. The representatives of the Governors of the seven Colorado River Basin States have submitted a "Working Draft for Interim Surplus Criteria Guidelines" for inclusion in the final environmental impact statement which Reclamation published in the August 8, 2000 issue of the *Federal Register* (volume 65, No.153). The CRB supports the seven Basin States' Working Draft for Interim Surplus Criteria Guidelines as the preferred course of action. 1

It is the CRB's understanding that Reclamation has requested that representatives of the Colorado River Basin States provide Reclamation with updated projections of demand for Colorado River water for Reclamation's use in the FEIS. California is in the process of fulfilling Reclamation's request taking into account the Plan and the Working Draft for Interim Surplus Criteria Guidelines.

Sincerely,

Gerald R. Zimmerman
Executive Director

1: The preferred alternative in this FEIS is derived form the Seven State Proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures.

California Regional Water Quality Control Board
Colorado River Basin Region

Winston H. Hickox
Secretary for
Environmental Protection

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73-720 Fred Waring Drive, Suite 100, Palm Desert, California 92260
Phone (760) 346-7491 - FAX (760) 341-6820

Gray Davis
Governor

September 25, 2000

Attn: Jayne Harkins Regional Director, Lower Colorado Region Bureau of Reclamation P.O. Box 61470 Boulder City, NV 89006-1470

RE: "COLORADO RIVER INTERIM SURPLUS CRITERIA DRAFT ENVIRONMENTAL IMPACT STATEMENT"

On July 31, 2000, the California Regional Water Quality Control Board - Colorado River Basin (Region 7) received a document entitled "Colorado River Interim Surplus Criteria Draft Environmental Impact Statement" (EIS), dated July 2000, State Clearing House Number 2000074010. The Department of Interior, Bureau of Reclamation (Bureau) developed and submitted the EIS, which presents a proposed federal action to adopt interim surplus water criteria for the Lower Colorado River Basin. Surplus water conditions are defined in the EIS as the presence of conditions within the Colorado River reservoirs that would allow the Bureau to supply the Lower Basin States (Arizona, California, and Nevada) with a quantity of water in excess of the "Law of the River" annual apportionment (2.8 million acre feet (maf), 4.4 maf, and 0.3 maf, respectively, totaling 7.5 maf). The EIS presents five alternative interim surplus water criteria for Colorado River Basin reservoirs and an environmental analysis of each alternative. The five alternatives, which are being considered for adoption by the federal government, are: (1) No Action, (2) Flood Control, (3) Six States, (4) California, and (5) Shortage Protection. The adopted criteria will be incorporated into the "Criteria for Coordinated Long-Range Operation of the Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act of September 30, 1968" (Long-Range Operating Criteria (LROC)), will be used in the development of the "Annual Operating Plan" (AOP), and will be in effect through the year 2015. The predicted benefits of the proposed action are to assist the Secretary of the Department of Interior (Secretary) with decisions regarding apportionment of water within the Lower Basin States, provide an increased level of predictability of surplus conditions and quantity of available water on an annual basis, and assist with efforts to reduce California's diversion of Colorado River water to 4.4 million acre feet per year. A preferred alternative is to be selected in the future.

Region 7 appreciates the opportunity to provide comments on this proposed action and congratulates the Bureau on their efforts analyzing the environmental impacts of the five alternatives. However, the EIS inadequately addresses the affected area and water quality impacts. There are several issues that need to be considered which may assist with the comparative analyses of the proposed alternatives and the criteria selection process.

1 The proposed affected area, as defined in the EIS, is the "Colorado River corridor as defined by the 100-year flood plain and reservoir maximum water surface elevations". Such a limited area addresses only a fraction of the region that may be impacted by the proposed action and is dependent on diversions of Colorado River water for various purposes. Such an approach precludes a thorough and comprehensive assessment of the proposed alternatives. **The proposed affected** area should be expanded to include the entire region within the Lower Division States that are dependent on the Colorado River as a water supply.

1: Off-river effects of storage and use of surplus water have been or are being addressed in existing or ongoing NEPA and/or CEQA/CESA compliance documents as appropriate. These activities are authorized by state actions, and include the Quantification Settlement Agreement PEIR, Secretarial Implementation Agreement EA, IID/SDCWA Transfer EIS/EIR, and the San Diego County HCP. The federal government does not have jurisdiciton over groundwater aquifers, recharge sites or other off-stream storage sites within the states.

Jayne Harkins

-2

September 25, 2000

2 Regarding potential water quality impacts, the Bureau assess two issues in the EIS: salinity of the Colorado River water and the water quality and contaminant concentrations in the vicinity of the Southern Nevada Water Authority intake locations on Saddle Island in Lake Mead. Once the affected area is expanded, as recommended above, additional potential water quality issues also will need to be addressed. Particular issues of concern within this Regional Board boundaries are water quality impacts of groundwater and surface waters that can be caused by a reduction of freshwater flows into the Region. The main water quality problems in this Region's surface waters (e.g., Salton Sea) are primarily associated with nonpoint source pollution (e.g., agricultural return flows). The severity of these problems, like salt concentrations in the Salton Sea and selenium concentrations in the Sea's tributaries, can be exacerbated by any reduction of freshwater inflows into the Region. Conversely, the problems can be somewhat mitigated by an increase of freshwater flows into the Sea. The EIS should address these two issues.

3 In the EIS the Bureau establishes a baseline condition, using a spill avoidance strategy referred to as 75R, at a "value for which 75 percent of the historic natural flow at Lee's Ferry is less than this **value (18.1 maf).**" The baseline condition is used in the EIS for modeling and comparative analyses of the alternatives, and is proposed by the Bureau since it closely resembles surplus criteria presently used by the Secretary. Such a strategy considers one hydrologic condition, however as illustrated in the EIS Figure 3.3-1 the annual Colorado River flows are highly variable, ranging from an approximate minimum of 5 maf to an approximate maximum of 24 maf. Establishing additional baseline conditions at extreme conditions, drought and excessively wet years, will provide a broader perspective of potential climatic scenarios and hydrologic conditions, and may assist in the criteria selection process.

4 Within the EIS there are several graphs comparing alternatives for the period from 2000 through 2050. Such graphs provide useful information. However, the 50-year timeframe requires the application of a large vertical scale, which precludes a comparative analysis of the alternatives, such as Figure 3.3-7. The Bureau should consider the benefits of two graphs one for the period 2000 through 2015 and one for the period from 2015 through 2050, and the application of a vertical scale that enables the comparison of the alternatives. As presented, due to the applied scale, there appears to be an insignificant difference between the alternatives on several issues, which may not be realistic. Additionally, the Bureau should consider the benefits of revising the vertical scale of the "Comparison of Colorado River Flow" graphs in Attachment L of the EIS.

If additional input is required I may be reached via email at grifb@rb7.swrcb.ca.gov or by phone at (760) 674-8142.

BEATRICE GRIFFEY
Associate Engineering Geologist

BG: kt

File: CR GC

California Environmental Protection Agency

Recycled Paper

2: Return flows into the Salton Sea are the subject of the Salton Sea Restoration Project EIR/EIS and specific conservation activities proposed by the Imperial Irrigation District related to the transfer of conserved water to San Diego and reduced return flows to the Salton Sea are being addressed in the forthcoming EIR/EIS. Reduction of freshwater tributary inflows into the Salton Sea is not affected by or within the scope of the federal action addressed in this EIS. Water quality of tributary inflows/return flows is regulated by the Board, California Department of Heath Services, and EPA.

3: The baseline spill avoidance strategy referred to in the comment utilizes a unique flow, for which associated effects are used to determine surplus conditions. A full range of historical flows were used to evaluate the baseline. See response to Comment No. 31-8 for a discussion of flows used for evaluation in the FEIS.

4: It is useful to depict the results for the total 50 year period of analysis on a single figure to present a complete picture of what happens during the interim surplus criteria and the ensuing 35 year period. In some instances, different presentations for the two noted periods were included when such information was thought to be appropriate. Additionally, the vertical scale is varied, where needed, to focus on the results being presented.

STATE OF COLORADO

OFFICE OF THE EXECUTIVE DIRECTOR
Department of Natural Resources
1313 Sherman Street, Room 718
Denver, Colorado 80203
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DEPARTMENT OF NATURAL RESOURCES

Greg E. Walcher
Executive Director

September 11, 2000

4600

Ms. Jayne Harkins
Attention BCOO-4600
U.S. Bureau of Reclamation
P.O. Box 61470
Boulder City, Nevada 89006-1470

Dear Ms. Harkins:

On behalf of the State of Colorado, I am writing to comment on the Bureau of Reclamation's July 2000, "Colorado River Interim Surplus Criteria Draft Environmental Impact Statement" (DEIS). The Colorado Department of Natural Resources includes the Colorado Water Conservation Board, the agency charged with promoting the protection, conservation and development of Colorado's water resources in order to secure the greatest utilization of those resources for the benefit of present and future generations. It is our mission to ensure that Colorado's water is protected for use of future generations, and that its compact obligations are enforced under the Law of the River.

Colorado supports the effort to develop workable interim surplus criteria for the lower Colorado River that will assist California in reducing its use of Colorado River water to its allotted 4.4 million acre-feet ("maf"). The complexity of the operations of the lower Colorado River, and the Law of the River, always make clear and concise descriptions of the background and a proposed action a challenge. In general, the DEIS fairly describes the purpose and need for the criteria and the affected environment, and analyzes an appropriate range of alternatives. It would be more clear if that section of the document specifically referred to the 4.4 Plan as the primary reason for the discussion of interim surplus criteria. In addition, there are a few significant areas in the discussions where the Law of the River and river operations have not been accurately stated:

1

2

- **Use of the 75R strategy to describe the no action alternative** -- The 70R Strategy, not the 75R, has been the Colorado River reservoir operating strategy since the mid 1980's with only one exception. While the 75R strategy has been reviewed on occasion as part of the annual operating plan development, it has never been the standard and should not have been used to describe the no action alternative.

3

- **Section 1.4.2 Glen Canyon Dam Operations** -- The discussion of Glen Canyon operations is not precisely accurate. The Colorado River Compact requires that the Upper Division States not deplete the flow at Lee Ferry below an aggregate of 75 maf for any period of 10 consecutive years (plus ½ of the Mexican Treaty delivery deficiency, if any). The 8.23 maf per year minimum objective release identified in the Long Rang Operating Criteria should not be confused with compact requirements, and this section and any others should be revised to accurately reflect what the compact requires.

4 cont'd below

- **Section 3.16.6 Preliminary Summary of Effects to Special-Status Species and Habitat in Mexico** -- We strongly disagree with the inclusion of this information, as it is beyond the scope of NEPA and ESA consultation requirements. The allocation and delivery of Colorado River

1: See response to Comment 11-9.

2: The 70R strategy is used for the baseline in this FEIS. See response to Comment 57-11 for additional information.

3: Glen Canyon Dam is operated according to the LROC as discussed in Section 1.4.2. Section 1.3.3 discusses the LROC and the process for review and modification of the LROC. This EIS does not address disparities between the LROC and the Colorado River Compact. Concerns over the relationship between the Colorado River Compact and the LROC should be addressed through the LROC review process.

4: See response to Comments 22-4 and 22-10.

4 cont'd

water to Mexico is established and controlled by international treaty. As the DEIS acknowledges, Reclamation has absolutely no control over what happens with water deliveries and to these species outside the borders of the United States. It is therefore beyond the scope of Reclamation's authority, confusing, and unnecessary to attempt to evaluate any possible effects of water deliveries to Mexico on these species. Reclamation has not included such information in other Environmental Impact Statements of comparable impact and it is inappropriate to do so here.

5

While we feel it is necessary to point out the more significant inaccuracies, they do not affect the analysis or conclusions of the DEIS, which fairly portrays the potential impacts of the possible actions. Likewise, there are a number of other statements expressed in the DEIS concerning the Law of the River with which Colorado disagrees or does not fully concur. Again, because these differences do not significantly impact the results of this DEIS, we do not see any merit in identifying them all, commenting on them or debating them in the DEIS process. Still, Colorado wants it clearly understood that its concurrence with the DEIS and its analyses does not indicate concurrence with all statements concerning the Law of the River in the DEIS. We strongly encourage Reclamation to include in the final EIS the usual disclaimer it uses to address the differences that exist with respect to the Law of the River.

6

Regarding the selection of a preferred alternative, Colorado supports the Interim Surplus Criteria developed by the seven Colorado River Basin States and noticed in the Federal Register on August 8, 2000 as supplemental information to the DEIS. These criteria are a modification of the six-state proposal described in the DEIS. The seven-state proposal is preferable to the six-state proposal set out in the DEIS because it provides the water supplies sought with an acceptable level of risk to reservoir storage. In addition, the seven-state criteria were developed using a 70R Strategy, which we believe is a more appropriate representation of the Colorado River reservoir operating strategy for the past fifteen years. The seven-state criteria were also developed using the Upper Colorado River Basin depletion schedule adopted by the Upper Colorado River Commission in December 1999, which is more up-to-date than the depletion schedule used in the DEIS. While these differences resulted in modifications and improvements to the six-state proposal discussed in the DEIS, the operation and impacts of the seven-state criteria are still within the range of alternatives and impacts analyzed in the DEIS.

Colorado worked extensively on the development of the DEIS supplemental information and is convinced that the seven-state proposal is the best alternative. We oppose the selection of any interim surplus criteria alternative that departs significantly from the seven-state proposal. Thank you for considering our comments on this very important matter.

Sincerely,

Greg E. Walcher,
Executive Director

cc:
Colorado Water Conservation Board Members
Upper Colorado River Commission Members
Colorado River Advisory Committee Members
Colorado Wildlife Commission Members

5: Comment noted.

6: The preferred alternative in this FEIS is derived from the Seven States proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures.

COMMENT LETTER

RESPONSES

NEW MEXICO INTERSTATE STREAM COMMISSION

COMMISSION MEMBERS
RICHARD P. CHENEY, Chairman, Farmington
HAL E. ENGLE, Vice-Chairman, Rociada
THOMAS C. TURNEY, PE., Secretary, Santa Fe
PALEMON A. MARTINEZ, Valdez
HOYT PATTISON, Clovis
JOHN S. BULSTERBAUM, Deming
PHILIP R. GRANT, Albuquerque
HAROLD HOUGHTALING, Jr., Lake Arthur
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SEP 11 2000

September 8, 2000

BC001000
4600

VIA TELEFAX AND FIRST-CLASS MAIL

Jayne Harkins
Bureau of Reclamation, BC00-4600
Post Office Box 61470
Boulder City, Nevada 89006-1470

Dear Ms. Harkins:

This letter is to provide comments of this office on the Draft Environmental Impact Statement (DEIS) issued by the Bureau of Reclamation on the proposed adoption of specific criteria under which surplus water conditions may be determined in the Lower Colorado River during the next 15 years. These comments include the information provided Reclamation from the Seven Colorado River Basin States included in the Federal Register/Vol. 65, No. 153, August 8, 2000.

1 Page 1-11 DEIS. Paragraph 1.3.2.2 states, that the Colorado River Compact apportioned to each basin, (Upper and Lower Basins), the exclusive beneficial consumptive use of 7.5 million acre-feet (maf) of water a year. No mention is made of the apportionment of an additional 1.0 maf to the Lower Basin as provided in Article III(b) of the Compact. The final EIS should include the Article III(b) apportionment.

2 Page 1-11, Paragraph 1.3.2.2.1. The paragraph states that the Upper Colorado Basin Compact divided the Upper Basin's 7.5 maf apportionment between the signatory states and lists the amount to Arizona and the percentage to each of the Upper Division States, which is not an accurate statement. The Upper Basin Compact apportioned among the four Upper Division States those percentages listed in Paragraph 1.3.2.2.1 of the total quantity of consumptive use apportioned to and available for use each year by the upper basin under the Colorado River Compact and remaining after deduction of the use, not to exceed 50,000 acre-feet per annum, made in Arizona.

3 Page 1-12, Paragraph 1.3.2.2.2. The paragraph lists apportionments to the Lower Division states totaling 7.5 maf, but does not mention that the listed apportionment, as confirmed by the U.S. Supreme Court Decree in Arizona v. California, is for only the mainstream water available for release by the United States. The final EIS should explain carefully the apportionment.

1: Paragraph 1.3.2.2 has been revised to include language describing the Lower Basin's right to increase its consumptive use by 1 maf.

2: Per your comment, paragraph 1.3.2.2.1 has been modified.

3: Per your comment, the first sentence in the first paragraph of paragraph 1.3.2.2.2 has been modified.

Ms. Jayne Harkins
September 8, 2000
Page 2

4 This office recommends that the Interim Surplus Guidelines-Working Draft provided to the Bureau of Reclamation by the Seven Colorado River Basin states be adopted by the Bureau of Reclamation as specific criteria for determining surplus, normal and shortage conditions for a 15 year interim period ending in 2016 and for determination of 602(a) storage in Lake Powell during the interim period.

We appreciate the opportunity to provide comment on the DEIS.

Sincerely,

Thomas C. Turney, P.E.
Secretary

Philip B. Mutz
Upper Colorado River Commissioner

TCT:PBM:rav

\\colorado\harkins2 f00

4: The preferred alternative in this FEIS is the Basin States Alternative which was derived from the draft Seven States Proposal. Reclamation was unable to structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures.

KENNY C. GUINN, *Governor*
RICHARD W. BUNKER, *Chairman*
JAY D. BINGHAM, *Vice Chairman*
GEORGE M. CAAN, *Director*

STATE OF NEVADA

SHERI BUCK
[illegible], *Commissioner*
LAMOND R. MILLS, *Commissioner*
BRYAN NIX, *Commissioner*
HOLAND D. WESTERGARD, *Commissioner*
MYRNA WILLIAMS, *Commissioner*

COLORADO RIVER COMMISSION
OF NEVADA

SEP 11 2000

September 8, 2000

B0001600

Mr. Robert W. Johnson
Regional Director
Attn: Jayne Harkins (LC-4600)
Lower Colorado Region
U.S. Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

Re: Draft Environmental Impact Statement, Colorado River Interim Surplus Criteria

Dear Mr. Johnson:

The Colorado River Commission of Nevada, in its capacity as the Nevada state agency entrusted with the State of Nevada's interest in the Colorado River under the Colorado River Compact of 1922, has reviewed the Draft Environmental Impact Statement, Colorado River Interim Surplus Criteria, July 2000 (DES 00-25), the four alternatives discussed therein, and the supplementary material proposing a Seven Colorado River Basin States Alternative published on August 8, 2000 at 65 Federal Register 48531-48538. We endorse the comprehensive analysis contained within the Draft EIS, but recommend that the Seven Colorado River Basin States Alternative be adopted as the preferred alternative.

1 The Seven Basin States Alternative represents a solution to water management within the Lower Colorado River basin derived from the cooperative efforts of water users within the affected States, working collaboratively with the Bureau of Reclamation. It is the result of significant commitments on the part of Californians to diminish California reliance on the Colorado River and the forbearance of other Colorado River states to permit California to reach its more limited consumption objectives within a reasonable period. It contains quantitative means by which to determine whether surpluses exist, reducing subjectivity to some extent, but maintains the current process utilized annually in development of the Annual Operating Plan. We recognize that any interim surplus criteria may have some impact on power resources. We are ready to work with the BOR to minimize and mitigate potential impacts on power generation should they occur.

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http://www.state.nv.us/colorado_river/

1: The preferred alternative in this FEIS is derived form the Seven States proposal. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures.

cont'd

We recommend that the Seven Basin States Alternative be incorporated within the Final Environmental Impact Statement as the preferred alternative and that its details be analyzed pursuant to the same comparative analytical method exercised in the Draft Impact Statement with respect to the four alternatives presented therein.

Sincerely,

George M. Caan
Executive Director

Distribution
Colorado River Basin States Representatives (see attached list)

MS PATRICIA MULROY
GENERAL MANAGER
SOUTHERN NEVADA WATER AUTHORITY
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MS RITA PEARSON MAGUIRE
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MR GREG E WALCHER
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1313 SHERMAN STREET ROOM 718
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KENNY C. GUINN, *Governor*
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JAY D. BINGHAM, *Vice Chairman*
GEORGE M. CAAN, *Director*

STATE OF NEVADA

SHERI BECK
[illegible], *Commissioner*
LAMOND R. MILLS, *Commissioner*
BRYAN NIX, *Commissioner*
ROLAND D. WESTERGARD, *Commissioner*
MYRNA WILLIAMS, *Commissioner*

COLORADO RIVER COMMISSION
OF NEVADA

SEP 11 2000

September 8, 2000

Mr. Robert W. Johnson
Regional Director
Attn: Jayne Harkins (LC-4600)
Lower Colorado Region
Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

Re: Draft Environmental Impact Statement, Colorado River Interim Surplus Criteria

Dear Mr. Johnson:

The Colorado River Commission of Nevada has received two comment letters in its capacity as designee of the Nevada Department of Administration's environmental document review Clearinghouse (Nevada SAI # E2001-005). Those two comment letters, from the Nevada Department of Transportation and the State Historic Preservation Officer, are attached.

Sincerely,

James H. Davenport
Chief, Water Division

Attachments

cc: Heather Elliott, Nevada State Clearinghouse

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INTER OFFICE

MEMO

RECEIVED
SEP
COLORADO RIVER COMMISSION

To: James Davenport, Colorado River Commission
From: Rebecca Lynn Palmer, Archaeologist
Subject: Colorado River Interim Surplus Criteria DEIS
Nevada SAI #E2001-005
Date: August 30, 2000

The Nevada State Historic Preservation Office (SHPO) has reviewed the subject document and has the following comments:

1 | 1. The SHPO concurs with the Bureau of Reclamation's determination that the "No action and each of the action alternatives could result in changes in the surface elevation of Lake Powell and Lake Mead and changes in release patterns and flow of the Colorado River below Hoover Dam." The SHPO also agrees that " These changes could result in changes in erosional and /or depositional processes that could affect historic properties, were such properties present" (3.13.4) As a result, the SHPO does not agree with the Bureau of Reclamation's determination that this undertaking has no potential to affect historic properties (3.13.2). By the agency's own definition, this undertaking does have the potential to affect historic properties. The probability that significant historic properties would or would not be present in the area of potential effect is not germane to this determination.

2 | 2. By making a determination that this undertaking does not have the potential to affect historic properties, regardless of the agency's own assertion to the contrary, the Bureau of Reclamation has precluded this agency, the public, affected Indian Tribes, and local governments from commenting on the effect of this undertaking.

3 | 3. The Bureau of Reclamation has emphasized the significance of archaeological and architectural resources to the exclusion of resources that could be of religious or cultural significance but contain no archaeological or architectural materials. The SHPO recommends that this document take the potential for Traditional Cultural Properties into consideration before preparing a final EIS.

4 | 4. The SHPO recommends that the Bureau of Reclamation obtain Advisory Council comment on the effect of this undertaking.

1: Thank you for your comments and for bringing to our attention your concerns regarding Reclamation's ongoing operation of the Colorado River. Per your request, the matter of effects to historic properties resulting from the development of Interim Surplus Criteria (ISC) has been forwarded to the Advisory Council on Historic Preservation (Council). However, because development and implementation of ISC falls within the range of ongoing operations, and because the reservoirs will continue to be operated within historic operational parameters under the baseline conditions and action alternatives, Reclamation believes that the issues you raise are better addressed under Section 110, rather than Section 106, of the National Historic Preservation Act. Reclamation is aware of its responsibilities under Section 110 for managing historic properties on lands under its jurisdiction and will commit to consulting with you, the Council, tribes, and other interested parties within that framework.

2: Your office, the public, affected Indian tribes and local governments were provided an opportunity to identify concerns for the effects of the proposal for interim surplus criteria as part of scoping and individual meetings with interested publics and the Ten Tribes, CAP Tribes, and Colorado River Tribes. Distribution of the DEIS and public hearings were another means of providing opportunity to comment on our assessment of the effects of this undertaking on cultural resources. Reclamation is also consulting with potentially affected tribes on a government-to-government basis to understand and address their concerns. Reclamation will stand by its determination of effect of this action on historic properties and will refer our disagreement to the Advisory Council for further comment and consultation.

3: Resources of religious or cultural significance are Traditional Cultural Properties included in our definition of historic properties in Chapter 3.13.1.

4: Reclamation has referred the SHPO and Reclamation's disagreement to the Council for comment and further consultation.

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION
1263 S. Stewart Street
Carson City, Nevada 89712

KENNY C. GUINN
Governor

August 3, 2000

TOM STEPHENS, P.E., Director

In Reply Refer to:

RECEIVED
AUG 10 2000
COLORADO RIVER COMMISSION

JAMES DAVENPORT
555 E WASHINGTON AVE
STE 3100
LAS VEGAS NV 89101

ESD 7.01

Dear Mr. Davenport:

The Nevada Department of Transportation has reviewed the project titled: DEIS for the Colorado River Interim Surplus Criteria, SAI# E 2001-005.

5 | Based on the information submitted there are no conflicts with Nevada Department of Transportation projects, plans or policies.

Thank you for the opportunity to review this project.

Sincerely,

Thomas J. Fronapfel

Thomas J. Fronapfel, P.E.
Assistant Director-Planning

TJF:TM:nc

cc: Heather Elliott, Nevada State Clearinghouse

5: Comment noted.

State of New Mexico
ENVIRONMENT DEPARTMENT
Office of the Secretary
Harold Runnels Building
1190 St. Francis Drive, P.O. Box 26110
Santa Fe, New Mexico 87502-6110
Telephone (505) 827-2855
Fax: (505) 827-2836

GARY E. JOHNSON
GOVERNOR

PETER MAGGIORE
SECRETARY
AU 21 00

PAUL R. RITZMA
DEPUTY SECRETARY

August 16, 2000

BCOO 4600

Regional Director
Lower Colorado Region
Attn.: Jayne Harkins (LC-4600)
Bureau of Reclamation
P.O. Box 61470
Boulder City
Nevada 89006-1470

Dear Ms. Harkins:

RE: DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE COLORADO RIVER INTERIM SURPLUS CRITERIA

This transmits New Mexico Environment Department (NMED) comments concerning the above-referenced Draft Environmental Impact Statement (DEIS).

The DEIS describes alternatives for managing water stored in Lakes Mead and Powell. The alternatives are criteria for determining whether a surplus of water is stored in either of the reservoirs. Identification of a surplus may trigger a release, and the timing and nature of releases may influence surface water resources including aquatic life downstream of Glen Canyon Dam.

1 The NMED concurs with the Bureau of Reclamation that it is appropriate that, because operation of upper basin reservoirs (upstream of Lake Powell) is independent of Lake Powell, the "northern [upstream] limit of the potentially affected area under consideration in this DEIS is the upper reaches of Lake Powell" (DEIS, p. 3.2-1). The affected area is therefore beyond the jurisdiction of the NMED.

We appreciate the opportunity to comment on this document. Please let us know if you have any questions on the above.

Sincerely,

Peter Maggiore

PETER MAGGIORE
SECRETARY

NMED File No. 1382ER

1: Comment noted.

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF WATER RESOURCES

Michael O. Leavitt, Governor
Kathleen Clarke, Executive Director
D. Larry Anderson, Division Director

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PO Box 146201
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SEP 11 [illegible]

BCOO-4600

September 6, 2000

Ms. Jayne Harkins
Attention BCOO-4600
P.O. Box 61470
Boulder City, Nevada 89006-1470

Ms. Harkins

Thank you for the opportunity to comment on the Draft Environmental Impact Statement (DEIS) and supplemental information on the "*Colorado River Interim Surplus Criteria*". This important issue is of vital concern to Utah and all of the Colorado River Basin States.

1 While Utah recognizes the Lower Colorado River Basin's (in particular California's) demand for water exceeds their Compact apportionment, we have long been concerned that little was being done in California to manage its demand for Colorado River water. It is with hope that we see the development of Interim Surplus Criteria as a way to provide California and the Lower Basin an opportunity to put in place demand management constraints that will allow the Lower Basin to live within its compact apportionment, while providing California with a higher degree of certainty of keeping the Metropolitan Water District aqueduct full for the next 15 years. All of the Basin States and the Department of Interior (DOI) are to be congratulated for their earnest efforts in cooperating on this issue and attempting to develop an acceptable solution.

As in many issues dealing with the Colorado River, technical answers are far easier to obtain than acceptable solutions. In dealing with interstate and federal/state issues on the Colorado River, political compromise and consensus is, along with technical knowledge, the only way to obtain a workable solution. With this in mind, I would like to address a disconcerting premise in the No Action/Baseline alternative of the DEIS.

2 The DEIS states "*In order to follow the Council on Environmental Quality (CEQ) guidelines calling for No Action alternative for use as a "baseline" against which to compare project alternatives, the Bureau of Reclamation selected a specific operating strategy that represents possible future operating conditions in the absence of interim surplus criteria . . .*" (Paragraph 3 of page S4 of the DEIS). The No Action/Baseline strategy wrongly selected by the Department of Interior was 75R. Without getting into the technical merits of a 75R versus a more conservative 70R strategy, I would point out that prior to the start of the Interim Surplus Criteria process, the 70R strategy was the political compromise accepted by the Seven Colorado River Basin States as part of the Annual Operating Plan (AOP) development process. For the DOI to

Providing customer service for Water Resources planning, development and conservation.

1: Comment noted.

2: The 70R strategy is used for the baseline in this FEIS.

cont'd

choose any other baseline than 70R is unacceptable and raises questions of trust and hidden agendas. We understand this baseline was an error and will be corrected in the final document. Utah requests the No Action/Baseline alternative be rewritten using a 70R strategy to reflect the historic process that has been use by the Department of Interior and the Seven Colorado River Basin States in developing the Annual Operating Plan each year.

3

In the spirit of cooperation and consensus, the Seven Basin States have recently developed and presented the "Seven Basin States Interim Surplus Guidelines" (Guidelines), as requested by the Secretary of Interior in his keynote address at the December 1999 Colorado River Water Users Workshop in Las Vegas. The Secretary indicated he would use the states Guidelines to administer the Lower Colorado River Basin water supply during the next 15 years if the states could develop a consensus position. The Guidelines have been painstakingly developed and are the result of much effort and compromise of all the parties. The Guidelines have been published in the Federal Register (August 8, 2000, page 48531). These Guidelines include: 1) protection of Upper Colorado River Basin Water Users, 2) protection of water levels in Lake Powell, 3) and enforceability of California's commitment to manage demand to 4.4 million acre-feet per year of Colorado River Water. These three items are critical for Utah's and the other basin states support of the new Interim Surplus Criteria.

Utah feels the Guidelines fit within the range of the alternatives evaluated as part of the DEIS. It is Utah's full expectation the Guidelines will be adopted by the Secretary of Interior in his Record of Decision. Given how hard it is to craft a compromise and develop support for these issues on the Colorado River, the "Seven Basin States Interim Surplus Guidelines" must not be ignored; and the Secretary of Interior needs to fulfill his promise to implement the Guidelines developed by the states as the preferred alternative in the Final EIS.

Thank you,

D. Larry Anderson

D. Larry Anderson, P.E.
Director

cc: Governor Michael O. Leavitt
Upper Colorado River Commission
Seven Basin States

3: The preferred alternative in this FEIS is the Basin States Alternative which was derived from the draft Seven States Proposal. Reclamation was unable to structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures. Reclamation's detailed description of the Basin States Alternative is in Attachment I.

JIM GERINGER
GOVERNOR

State Of Wyoming
Office of Federal Land Policy

ART REESE
DIRECTOR

SEP 13 2000

September 8, 2000

BC001600
4600

Mr. Robert Johnson, Regional Director
Lower Colorado Region
c/o Ms. Jayne Harkins, BC00-4600
Lower Colorado Regional Office
Bureau of Reclamation
P.O. Box 61470
Boulder City, Nevada 89006-1470

Dear Mr. Johnson:

On behalf of the State of Wyoming, this Office has reviewed the Draft Environmenal Impact Statement for the Colorado River Interim Surplus Criteria. We also provided the information to all affected State agencies for their review, in accordance with State Clearinghouse procedures. Under separate cover I believe you received a letter from the Wyoming State Engineer's Office. I have enclosed a copy of that letter for your convenience.

State agency comments are specific to their respective agency missions. While the State defers to their respective technical expertise in developing a unified State position, the responsibility to ultimately articulate the official state policies and positions lies with the Governor or the Office of Federal Land Policy. However, having said that, in this particular case, we defer to the very able technical expertise of the State Engineer's Office. They have been active in the process since its inception and will continue to be involved.

This Office will require two copies of future information and documents regarding this project for continued distribution and review.

The State of Wyoming appreciates the opportunity to comment.

Sincerely,

Julie L. Hamilton
Assistant Director

Enclosure (1)

Herschler Building 1W ◆ 122 W. 25th Street ◆ Cheyenne, Wyoming 82002-0060
Phone (307) 777-7331 ◆ Fax (307) 777-3524

State Engineer's Office

JIM GERINGER
GOVERNOR

HERSCHLER BUILDING, 4-E CHEYENNE, WYOMING 82002
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seoleg@state.wy.us

RICHARD G. STOCKDALE
ACTING STATE ENGINEER

August 28, 2000

Mr. Robert Johnson
Regional Director, Lower Colorado Region
c/o Ms. Jayne Harkins, BC00-4600
Lower Colorado Regional Office
Bureau of Reclamation
P.O. Box 61470
Boulder City, Nevada 89006-1470

Re: Transmittal of Comments on the Colorado River Interim Surplus Criteria Draft Environmental Impact Statement, DES 00-25, filed July 7, 2000

Dear Mr. Johnson:

The Wyoming State Engineer's Office has reviewed the subject draft Environmental Impact Statement (DEIS) and supplemental information provided by the Bureau of Reclamation. As you are aware, the State Engineer's Office is quite supportive of the development of interim surplus criteria and has been an active participant in the deliberations and dialogue concerning this important matter. These comments are specific to this agency's statutory mission which includes the preservation of Wyoming's water allocations to safeguard the State's current and future water supplies. In that regard, our comments, along with those of other agencies who review and comment on the subject document, are meant to assist in defining the official State position. Accordingly, the following comments defer to and are subordinate to the official State Position which will be forthcoming by the close of the public comment period.

In our letter of June 30, 1999, this office responded to the May 18 and May 29, 1999 Federal Register notices advising of Reclamation's consideration of development of interim operating criteria. In that letter, we noted our support for the development of both surplus and shortage criteria and we noted our prior recommendation to the Secretary that the development of surplus and shortage criteria for the interim period be incorporated into the ongoing and well established AOP development process. Our letter expressed concerns about the scope, commitment of resources, usefulness and time schedule associated with preparation of a National Environmental Policy Act (NEPA) document for Reclamation's development effort. The subject DEIS does not contain a preferred alternative and has been delayed far beyond the original schedule publicized during the scoping meetings (that schedule specified "agency/public review and comment – January through March 2000"). The DEIS unfortunately does not address

Surface Water (307) 777-7354 | Ground Water (307) 777-6163 | Interstate Streams (307) 777-6150 | Board of Control (307) 777-6178

shortage criteria with the exception that shortage "triggers" are embodied in certain of the surplus alternatives. Clear and concise explanations, beyond generalized statements, of the impacts and the relative differences on affected resources of the alternative analyzed are difficult to find in the DEIS.

While we feel that the document has a number of shortcomings that result from the wide-sweeping approach taken, the impact of the various alternatives and no preferred alternative being set forth, we are hopeful that the supplementary information published in the Federal Register on August 8th will be most helpful in crystallizing a preferred alternative and moving this important effort forward. The Wyoming State Engineer's Office continues to be supportive of implementing interim surplus operating criteria and urge Reclamation to expeditiously prepare the Final EIS and issue its record of decision as soon as practical.

The Wyoming State Engineer's Office offers the following specific comments on this draft environmental impact statement.

1 Page S-3, 3rd, 4th and 11th lines of "The California Colorado River Water Use Plan" - references to the California Colorado River Water Use Plan as the "California 4.4 Plan" or the "4.4 Plan" should be to the "California Colorado River Water Use Plan which was formerly known as the California 4.4 Plan."

2 Page S-6, Heading S.2.6, 6th line - The word "may" needs to be changed to "will" in this line. The sentence which begins on the previous line therefore would read: "The continuation of the interim surplus criteria through 2015 will be contingent upon satisfactory progress.

3 cont'd Page S-8, S.3.4, 2nd paragraph - This paragraph states: "Mexico would receive its Treaty apportionment of Colorado River water under baseline conditions and all alternatives. The average probability of Mexico receiving its surplus entitlement of 200,000 af during any given year of the interim surplus criteria period is highest under the Flood Control Alternative (approximately 37 percent). The lowest average probability occurs under the shortage protection alternative (approximately 30 percent). The average probabilities of surplus deliveries to Mexico during any given year of the interim surplus criteria period under the baseline conditions and the Six States and California alternatives are 34, 32 and 30 percent, respectively." We note that these summary statements regarding the availability of surplus water for Mexico (the additional 200,000 af when there exists a surplus of waters of the Colorado River in excess of the amount necessary to satisfy uses in the United States) appear to be inconsistent with the statement found near the end of Section 1.1.4 on page 1-4 which reads: "This proposed action is not intended to identify conditions when Mexico may schedule this additional 0.2 maf (emphasis supplied). Reclamation is currently engaged in discussions with Mexico through the IBWC on the effects of this action."

Further, these summary statements relating the probability of occurrence of surplus water for Mexico seem to imply that the DEIS and its underlying hydrological simulation studies have

1: References to California's draft Colorado River Water Use Plan (CA Plan) have been corrected to distinguish it from their previous draft "4.4 Plan" where appropriate in the FEIS.

2: The Secretary's decision to continue interim surplus criteria within the 15-year interim period would be based on a number of factors which may include satisfactory progress towards meeting the goals of California's Colorado River Water Use Plan. Please refer to the response to Comment 33-3.

3: See response to Comment No. 11-13, regarding additional water deliveries to Mexico. This FEIS does not identify conditions for such deliveries.

prejudged that there would be Colorado River surplus waters in excess of the amount necessary to satisfy uses in the United States. The intent of the interim surplus operating criteria was set forth in the May 18, 1999 Federal Register notice (64 FR 27008 et seq.) as being:

> "Summary: The Department of the Interior, Bureau of Reclamation ("Reclamation") is considering development of specific criteria that will identify those circumstances under which the Secretary of the Interior ("Secretary") may make Colorado River water available for delivery to the States of Arizona, California and Nevada (Lower Division States or Lower Basin) in excess of the 7,500,000 acre-foot Lower Basin apportionment."

3 cont'd

In the "Supplementary Information" section on page 27009, the Notice stated:

> "In recent years, demand for Colorado River water in Arizona, California, and Nevada has exceeded the Lower Basin's 7,500,000 acre- foot basic apportionment. As a result, criteria for determining the availability of surplus has become a matter of increased importance. Under these circumstances, the Secretary believes that it may be prudent to develop specific criteria that will guide the Secretary's annual decision regarding the quantity of Colorado River water available for delivery to the Lower Basin States.

The "Summary" section of the May 28, 1999 *Federal Register* notice regarding the public meetings on the development of Surplus Criteria for Management of the Colorado River contained the same wording cited above. We suggest, based on the above, that Reclamation should recognize the intent expressed in the *Federal Register* statements and the wording found on page 1-4 and therefore revise by excluding the discussion of the additional water deliveries to Mexico in the Final Environmental Impact Statement for this proposed action.

4 Page 1-11, 3rd paragraph, 1st line - "Section VII" should be changed to "Article VII" in order to be consistent with the wording in the remainder of this section and with the wording of the Colorado River Compact.

5 cont'd below Page 1-12, Section 1.3.2.2.2, middle of the paragraph - Herein a sentence is found which reads: "The apportionments to the Lower Basin were established by the BCPA and confirmed by the Decree." This statement is technically incorrect. Milton N. Nathanson, in *Updating the Hoover Dam Documents*, (United States Department of the Interior, Bureau of Reclamation, United States Government Printing Office, Denver, Colorado, 1978) wrote on pages 8 and 9 of this book prepared by Reclamation that:

> "Section 4(a) of the Boulder Canyon Project Act authorized the Lower Basin States of Arizona, California and Nevada to enter into an agreement providing that of the 7.5 maf/yr annually apportioned to the Lower Basin by Article III(a) of the Compact there shall be apportioned to Nevada, 300,000 acre-feet annually ...

4: The suggested edit was included in the FEIS.

5: Comment noted.

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> The three State apportionment was never agreed upon by the Lower Division States despite negotiations in 1929 and 1930. However, the Supreme Court Opinion of June 3, 1963, in *Arizona v. California* (373 U.S. 546) concluded that Congress had made such an apportionment by authorizing the Secretary to accomplish this division. This was done by the Secretary's contracts for the delivery of water in the Lower Basin States and by providing (Section 5) that no person could have the use of Colorado River water without a contract with the Secretary for permanent service."

6 Page 1-14, Section 1.3.3, 3rd line - The text states that the LROC "address the operation of the Colorado River reservoirs ..." Reference to the second sentence of the LROC (Attachment A) will clarify that "They are to control the coordinated long-range operation of the storage reservoirs in the Colorado River Basin ..." Accordingly, the word "address" should be changed to "control" or "govern."

6: The suggested edit was included in the FEIS.

7 Page 1-15, second line - Similar to the comment offered immediately above, the word "addressed" is inappropriately used in discussing the LROC provisions regarding equalization of storage between Lakes Powell and Mead. The LROC use the word "shall" and hence the word "addressed" should be changed to "prescribed" or "mandated."

7: The word "addressed" was changed to "included", since the requirement is included in the LROC.

8 Page 1-16, Section 1.3.5, first line - We suggest inserting the word "federal" after "numerous" and before "reservoirs" in order to clarify this sentence. The aggregate storage capacity of all reservoirs in the Colorado River system would be much greater than this sentence indicates.

8: Comment noted. The wording was not modified in the FEIS.

9 Page 1-20, Section 1.3.6, last sentence - Please clarify the sentence which reads: "Reclamation has the responsibility to maintain the floodway." What does "maintain" mean in the context of this sentence and this section of the DEIS?

9: The Secretary of the Interior and Reclamation has the responsibility to conduct reviews of the floodway mapping at 5-year intervals, annually inspect the floodway to determine if any encroachment is occurring, and perform other activities. The activities for Reclamation and other federal entities as recommended to Congress are reported in the "Final Report of the Secretary of the Interior to the Congress of the United States on the Colorado River Floodway Protection Act", dated October 1992.

10 Page 1-21, Section 1.4.1 - We suggest that references herein to the California 4.4 Plan or the 4.4 Plan make clear that the California Colorado River Water Use Plan was formerly referred to as the 4.4 Plan and due to the inaccuracy of this term it is no longer used.

10: Comment noted. The term 4.4 Plan is no longer used to refer to California's current plan.

11 cont'd below Page 1-22, Section 1.4.1, 2nd full paragraph, 6th line - The choice of the word "may" in the sentence stating: "Therefore, regardless of which alternative is ultimately selected, failure of California to carry out the 4.4. Plan (sic) may result in termination or suspended application of the 15-year interim surplus criteria and reversion to the current system of surplus determinations that are made through the AOP process (emphasis supplied)." The word "may" must be changed to "will." In the following sentence, which reads: "Therefore, the Secretary may condition the continuation of interim surplus criteria for the entire period through 2015 on a showing of satisfactory progress in implementing the 4.4 Plan (sic) (emphasis supplied)." In this sentence, the word "may" must be changed to "will." A fundamental tenet of the willingness of Wyoming and other Colorado River Basin states to concur with the interim surplus operating criteria is enforcement of timely implementation of the California Colorado River Water Use Plan. This

11: Comment noted. The term 4.4 Plan is no longer used to refer to California's current plan.

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11 cont'd | wording, repeated in this document several places, without clarification is troubling and is inconsistent with Secretary Babbitt's pronouncements, negotiations among the seven Colorado River Basin States and understandings reached between the Department of Interior and the seven Colorado River Basin States over a period of numerous years.

12 | Page 2-1, Section 2.2.1.1 - The description that is found in this section of the spill avoidance or "R" strategy provides a well-worded and concise description of the strategy.

12: Comment noted.

13 | Page 2-3, Section 2.2.3, 1st paragraph, 5th line - We suggest that the word "under" that appears after "criteria" be changed to "within."

13: The change was made.

14 | Page 2-5, Section 2.3, 2nd paragraph - This paragraph states: "As noted above, the 75R operating strategy is not presented as an alternative for adoption. If an interim surplus criteria alternative is not implemented, it is presumed that the Secretary would determine surplus conditions using the same dynamic considerations currently used in the Secretary's annual determination (in the AOP), as discussed previously." While this is certainly the easiest and cleanest assumption that could be made for purposes of this DEIS, it does not seem to this office that this scenario is very likely. This assumption, as embodied in the above cited statement, ignores the fact that the Colorado River Management Work Group has discussed and has initiated several faltering attempts to develop more specific surplus and shortage operating criteria during the course of its work and discussions. The need for more specific criteria has been on the table for a number of years at this point in time. We would suggest that this wording be revised to indicate the difficulty in speculating what would be developed as the more specific criteria to be used for making surplus determinations and therefore, on that basis, it is presumed that the Secretary would determine surplus conditions using the same dynamic considerations currently used.

14: Comment noted.

15 | Page 2-9, Section 2.3.3.2, 1st paragraph - As acknowledged later in the text (page 2-10) the Six States alternative proposed that Tier 1 would be established by the "70R Line," NOT the "75R Line" as stated in the text in the 3rd line from the bottom of the page.

15: See response to Comment 37-8.

16 | Page 2-10, Section 2.3.3.2.1, 3rd line - Same comment as immediately above, i.e., the Six States Alternative Tier 1 was based on the "70R line," NOT the "75R line" as stated here in the text.

16: See response to Comment 37-8.

17 | Page 2-10, Section 2.3.3.2.1, 2nd paragraph - The text correctly states in the first sentence of this paragraph that: "It should be noted that the original Six State Plan uses the 70R strategy as the Tier 1 trigger" The second sentence states: "However, for modeling consistency with the baseline, the 75R strategy was used in this analysis for the Six States Alternative Tier 1 trigger." We request clarification about why it is necessary to have "modeling consistency" with the baseline. What does "modeling consistency" mean as used in this sentence. Certainly other questions could be asked about consistency regarding what was done with the other alternatives. The 70R and 75R strategies have an assumed annual runoff that varies by 800,000 acre-feet.

17: Comment noted. See response to Comment 37-8.

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18 | Page 3.3-3, Section 3.3.1.2, 1st line - We suggest that the words "and pumping from Lake Mead" be added after "annual releases" and before "of at least 7.5 maf" in this first sentence of this paragraph. Without this clarification, the sentence is technically incorrect.

19 | Page 4-3, Section 4.4, 1st full paragraph, 7th line - As commented on above, we object to the use of the word "may" and feel that it must be changed to "will" in the sentence beginning in the 5th line of this paragraph. The seven state negotiations over the past several years have been based on the principle that if the State of California fails to meet its water conservation and management goals throughout the stipulated term of implementation of the criteria, the Secretary will terminate the interim surplus criteria and operations will revert to the present manner of determining whether a surplus water supply condition exists.

20 | Page 5-1, Section 5.2, 1st paragraph - Change the word "on" to "in" in front of "Colorado River operations."

21 | Page REF-22, middle of the page - There is a problem with a missing line space between the citation for "Sogge, et al." and "Thwaites." There is an extra line space that should be removed between "Unitt" and "USBR."

22 | Page LOP-3 - Is it Barbara "Ralston" or Barbara "Raulston" in the middle of this page?

23 | Attachment A cover page - the use of the word "guidelines" in the 3rd line of the paragraph on this cover page inappropriately understates the import and effect of the LROC. We would suggest a wording revision that eliminates use of this word.

24 | Attachment A, page 2, last line "releases" should be "released."

25 | Attachment I, Detailed Modeling Documentation - We are disappointed to note that documentation of the modeling was deferred to the FEIS and that the reader is merely referred to Section 3.3.3.3 by the text on the cover-page of this Attachment. We presume that there will be sufficient opportunities to learn more about the details at the August 15, 2000 modeling meeting that is being held in Las Vegas, Nevada. Perhaps Reclamation will hear from interested reviewers and the Basin States at that meeting the sorts of descriptive information that will be most useful to include in Attachment I when it is prepared for the FEIS.

26 | Attachment P, entitled "Public Scoping Process," page 1, next to last paragraph - The first sentence of this paragraph states: "Two notices were published in the Federal Register regarding the proposed reallocation of Colorado River water." We believe that the choice of the words "proposed reallocation of Colorado River water" is both unfortunate and inaccurate. The adoption of more specific surplus criteria that will be applied during the interim period to make surplus determinations is not properly characterized, in our view, as a reallocation of Colorado River water. We request that this wording be changed to more specifically state the effect of the proposed action.

18: The first sentence of the first paragraph in Section 3.3.1.2 has been changed to read as follows - Hoover Dam is managed to provide at least 7.5 maf annually for consumptive use by the Lower Division states plus the United States' obligation to Mexico.

19: The Secretary's decision to continue interim surplus criteria within the 15-year interim period would be based on a number of factors which may include satisfactory progress towards meeting the goals of the California Colorado River Water Use Plan. See Attachment I.

20: Comment noted.

21: Comment noted. Change made in FEIS.

22: Correction has been made. "Raulston" is the correct spelling.

23: Comment noted. The change has been made.

24: The change was made.

25: Attachment I was prepared following the publication of the DEIS. Copies of Attachment I were made available to the public at the technical presentation on August 15, 2000, at all the public hearings, and as requested by mail. The Detailed Modeling Documentation is Attachment J to the FEIS.

26: The sentence has been corrected with wording that better matches the Federal Register Notice: "development of surplus criteria for management of the Colorado River."

27 Attachment P, page 2, Table 1 - The reference to "Las Vegas, CA" in the second column should be to "Las Vegas, NV."

28 Attachment P, pages 5-10, which encompass "Table 2" - this representation of the comments that were received during the scoping meetings and in response to the request for comments is exceedingly weak in our evaluation. The great lack of detail and extreme generalization associated with this format for describing and characterizing the comments that were received during the scoping process makes the presentation of this information of very little value. This section also fails to describe how the comments were used in any manner in the preparation of the DEIS, which is disappointing to our agency, who participated in one of the public meetings and provided a comment letter.

Thank you for the opportunity to submit these comments on the Colorado River Interim Surplus Criteria Draft Environmental Impact Statement. Should you have any questions, please don't hesitate to contact me at (307) 777-6151 or via e-mail at jshiel@state.wy.us. We look forward to expeditious preparation of the final environmental impact statement and the execution of the record of decision that will allow the implementation of interim surplus criteria for making surplus water determinations in the Secretary's Colorado River Annual Operating Plan during the interim period.

With best regards,

/s/

John W. Shields
Interstate Streams Engineer

cc: Seven Colorado River Basin States Representatives
Wayne Cook, Upper Colorado River Commission

27: This change has been made in the document.

28: Table 2 is intended as a summary of the comments received. The specialists working on this EIS were provided with complete sets of the comment letters and with transcripts of the scoping meetings.

TRIBES

Letter #	Tribe Name	Page #
48	Agua Caliente Band of Cahuilla Indians	B-165
49	Hualapai Nation	B-167
50	Navajo Nation Department of Justice (excludes attachments)	B-187
51	Navajo Tribal Utility Authority	B-191
52	Ute Mountain Ute Tribe	B-193
53	Ten Tribes Partnership	B-194

AGUA CALIENTE BAND OF CAHUILLA INDIANS

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SEP 11 2000

ACCOUNT 4600

September 8, 2000

Via Facsimile 702/293-8042
and First Class U.S. Mail

Regional Director
c/o Jayne Harkins, BC00-4600
Lower Colorado Regional Office
Bureau of Reclamation
P.O.Box 61470
Boulder City NV 89006-1470

RE: Colorado River Interim Surplus Criteria Draft Environmental Impact Statement

Dear Ms. Harkins:

Thank-you for the briefing on the Colorado River Interim Surplus Criteria Draft Environmental Impact Statement on August 30, 2000, at the Morongo Indian Reservation. Unfortunately, this meeting was scheduled much too late in the planning and development process to have allowed the Tribe the meaningful opportunity to evaluate the impacts of this plan and to have had our concerns addressed in the draft report. For this reason, it is our position that the Bureau of Reclamation has failed in its duty to act responsibly to protect and maintain Indian Trust Assets in potentially impacted areas of this project plan. The Agua Caliente's off-Reservation interests and concerns have not and yet must be taken into account because of the project's potential to directly, indirectly, and cumulatively affect water quality and quantity on the Reservation. The Bureau of Reclamation has failed to demonstrate that it has taken every precaution and measure to insure the protection of the Agua Caliente Indian Reservation from adverse affects of this project in a shared and unadjudicated aquifer system. Furthermore, the Bureau of Reclamation has shamefully neglected to enter into to serious government-to-government consultations with all potentially affected Tribes in the Coachella Valley. The Bureau is in direct violation of official Federal Policy pursuant to the following authorities:

1

1a

1. Executive Order No. 13084; consultation and Coordination with Indian Tribal Governments (May 14, 1998); and

1: Metropolitan Water District of Southern California (MWD) and the Coachella Valley Water District (CVWD) have and are currently storing portions of their basic and surplus apportionments of Colorado River water for intrastate purposes but the U.S. has jurisdiction over reserved Tribal water. Intrastate storage (e.g. groundwater storage) activities/facilities are not within Reclamation's jurisdiction, and thus does not permit nor follow the water for environmental compliance purposes once delivered to a water user's point of diversion. The federal government does not have jurisdiction over groundwater aquifers, recharge sites or other off-stream storage sites within the states. Ongoing or new groundwater storage projects would be regulated by state and local regulations and compliance requirements under CEQA, California Water Control Board, and the California Department of Health Services. The Coachella Valley Water District's water management plan and the related state permitting process are probably where the Tribes will find the best available information. Reclamation has the authority to deliver water only to the diversion point along the mainstem Colorado River.

1a: Reclamation respectfully believes that appropriate consultation with Indian Tribal Governments occurred with respect to the development of Interim Surplus Criteria. A full listing of the consultations during the development of the Interim Surplus Criteria is found in Section 5.4.

1a cont'd

2. The President's Memorandum on Government-to-Government Relations with Native American Tribal Governments, 59 Fed. Reg. 22,951 (April 29, 1994)

2 In view of the above critical issues, and the Tribe's inherent sovereign authority and interest in managing its water resources on the Reservation, we have evaluated the proposed alternatives and Draft Environmental Impact Statement as, "insufficient and seriously flawed." We strongly urge the Bureau's consideration of effects to Tribal Trust Lands in the Coachella Valley Watershed particularly in regards to groundwater banking.

3 In the future, we expect to be kept fully appraised through formal consultation of the progress and redraft of this report and to receive three (3) copies of the Final Environmental Impact Statement. The Tribe is not simply a stakeholder or member of the public, but a sovereign owed a duty of trust and is entitled to full participation in the consultation process.

We appreciate your cooperation and look forward to hearing from you.

Very truly yours,

Richard M. Milanovich
Chairman, Tribal Council
AGUA CALIENTE BAND OF CAHUILLA INDIANS

C: Tom Davis, Planning Director
Michael Kellner, Natural Resource Manager

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2: Reclamation respectfully disagrees and does not believe that the DEIS is flawed. Further, see response to Comment 48-1, and 48-1a.

3: Comment noted. The mailing list has been changed to reflect the need of three copies.

HUALAPAI NATION
OFFICE OF THE CHAIRWOMAN
Louise Benson, Chairwoman
Carrie Imus, Vice Chairwoman
P.O. Box 179 • Peach Springs, Arizona 86434 • (520) 769-2216

September 8, 2000

VIA FACSIMILE No. (702) 293-8042

Regional Director
Lower Colorado Region
c/o Jayne Harkins
BC00-4600
Bureau of Reclamation
PO Box 61470
Boulder City, NV 89006-1470

Re: Colorado River Interim Surplus Criteria Draft Environmental Impact Statement ("DEIS")

Dear Ms. Harkins:

On behalf of the Hualapai Tribe, I submit for the record the enclosed comments on the Colorado River Interim Surplus Criteria DEIS. As explained in the comments, the Hualapai Tribe has serious concerns about the impacts of the proposed criteria on the Tribe's ability to utilize its Colorado River water rights, on its economic development, and on its cultural resources.

Because the impacts of the proposed criteria on the Hualapai Tribe would be significant and because the Bureau of Reclamation ("Reclamation") and the Department of Interior ("DOI") have a trust duty that requires consultation with the Hualapai Tribe and protection of our water rights and other resources, we urge Reclamation and DOI to:

1. **Immediately commence quantification of our Colorado River water rights and complete quantification early in the implementation of the interim surplus criteria and prior to the first five year review of the interim surplus criteria;**

2. **Revise the DEIS to include analysis of the impacts on the Hualapai Tribe's water rights;**

3. Revise the DEIS to include analysis of the socioeconomic impacts on the Hualapai Tribe;

4. Comply with the National Historic Preservation Act § 106 process for taking into account the proposed action's impacts on cultural resources of concern to the Hualapai Tribe;

5. Protect the integrity of and access to Hualapai sacred sites on federal lands;

6. Mitigate significant Hualapai socioeconomic, environmental justice and cultural resource impacts;

7. Rewrite the DEIS in plain language;

8. Recirculate the DEIS for public comment after making the revisions requested above; and

9. Complete all of the foregoing through government-to-government consultation with the Hualapai Tribe.

Please share these comments with Deputy Secretary David Hayes, Debbie Saint, and other appropriate persons at BOR and DOI to ensure that we are promptly contacted to schedule an initial consultation meeting in September 2000.

Sincerely,

Louise Benson
Chairperson

cc (w/encl.): Deputy Secretary of Interior David Hayes
Debbie Saint, Bureau of Reclamation
Felicia Marcus, Regional Administrator, U.S. EPA Region 9
Clay Bravo, Director, Hualapai Department of Natural Resources
Annette Morgan, Program Manager, Hualapai Department of Natural Resources
Monza Honga, Director, Hualapai Department of Cultural Resources
Cameron Daines, President, Grand Canyon Resort Corporation
Susan G. Jordan, Nordhaus, Haltom, Taylor, Taradash & Bladh, LLP

HUALAPAI NATION
OFFICE OF THE CHAIRWOMAN
Louise Benson, Chairwoman
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COMMENTS OF THE HUALAPAI TRIBE ON THE COLORADO RIVER INTERIM SURPLUS CRITERIA DRAFT ENVIRONMENTAL IMPACT STATEMENT ("DEIS")

September 8, 2000

Introduction

The Hualapai Tribe has serious concerns about the impacts of the proposed interim surplus criteria on the Tribe's ability to utilize its water rights, on its economic development, and on its natural and cultural resources. The DEIS ignores these impacts, in violation of the trust duty, the requirement under the National Environmental Policy Act ("NEPA"), 42 U.S.C. §§ 4321, et seq., to consider the significant impacts of the proposed action, the cultural resources protection requirements of the National Historic Preservation Act ("NHPA"), 16 U.S.C. §§ 470, et seq., and the requirements of various Executive Orders concerning Native American Tribes and environmental justice populations.

In proposing the interim surplus criteria, the Department of the Interior ("DOI")[1] has not only failed to consider these impacts but also has failed to meet its trust duty to protect the Hualapai Tribe's trust resources. As the DOI is well aware, the Hualapai Tribe has unadjudicated aboriginal and federal reserved water rights in the Colorado River. These water rights are Indian Trust Assets entitled to protection by the DOI. The Hualapai Tribe has repeatedly requested consultation with the DOI on the quantification and protection of our water rights, to no avail.

In the past year, we have joined the Navajo Nation and the Havasupai Tribe in requesting a joint meeting with the DOI regarding water right issues of mutual concern to the

[1] As stated in the DEIS, the Secretary of the Interior is "acting through the U.S. Bureau of Reclamation (Reclamation)" in proposing the interim surplus criteria. DEIS at 1-1. The National Park Service ("NPS"), which like Reclamation is within the DOI, is a cooperating agency for the DEIS. Id. at 1-4. All references to DOI in these comments include the DOI, Reclamation and NPS.

tribes, including the proposed interim surplus criteria. Once again, we ask the DOI to honor its trust duty to protect our water rights by promptly quantifying our water rights in consultation with us. We understand that DOI intends to adopt interim surplus criteria by the end of this year, despite our objection to adoption of criteria prior to quantification of our water rights. Therefore, we demand that DOI immediately commence quantification of our water rights and complete quantification early in the implementation of the interim surplus criteria and prior to the first five year review of the interim surplus criteria. We also urge the DOI to take various other steps to address the violations of the trust duty, NEPA, NHPA and the Executive Orders discussed in these comments. These requests are summarized in the final section of these comments.

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Overview of the Hualapai Tribe and the Hualapai Reservation.

The Hualapai Tribe is a federally recognized Indian Tribe. **The Hualapai once inhabited seven million acres in and around the Grand Canyon and the Colorado River.** The Hualapai Indian Reservation was established in 1883 on a portion of the Tribe's ancestral lands. The main land base of the Reservation, located in northwestern Arizona, encompasses approximately one million acres of land and extends for 108 Colorado River miles, from about River Mile 165 to about River Mile 273

The Colorado River is central to Hualapai history, culture, sustenance and survival. The Hualapai traditionally cultivated along the Colorado River banks, in the side canyons and on the plateau. Hualapais also crossed the Colorado River at strategic locations in order to trade and visist with their relatives, the Pai Pais. Traditional ceremonial sites on the Colorado River have continued in use to the present day. **The Hualapai have engaged in ranching over vast areas of the Reservation since the early part of the 20th Century. The Hualapai, who are known as "the People of the Tall Pines," traditionally harvested timber. Timber harvesting is a significant component of the Reservation economic base today.**

The Hualapai Tribe's current economic development efforts focus on tourism. **The Tribe has designated about 9,000 acres in the northwest corner of the Reservation with unsurpassed views of the Grand Canyon and the Colorado River for tourism development. This area, known as Grand Canyon West, receives nearly 100,000 daytime visitors annually. In addition, Hualapai River Runners guides dozens of tourists on white water and float trips every day of the rafting season. These business ventures provide an important source of Tribal government revenues and Reservation employment.**

The Hualapai Tribe has an enrolled membership of about 2,200 persons. Approximately 1,800 persons reside on the Hualapai Reservation, including about 1,000 enrolled tribal members. Poverty and unemployment are epidemic on the Reservation. Over 56% of Indian residents were below the poverty level in the 1990 Census, and over 80% were below the U.S. Department of Housing and Urban Development's Very Low Income Standard in 1991. The Reservation unemployment rate is quite high: 56% according to 1995 BIA Labor Force data and up to 70% seasonally according to the Hualapai Tribe's most recent data.

The Hualapai Tribe Has Aboriginal and Federal Reserved Water Rights in the Colorado River.

There can be no question that the Hualapai Tribe has aboriginal water rights in the Colorado River. These rights arise from the Tribe's habitation and cultivation of the lands, and associated water uses, in and around the Grand Canyon since time immemorial. In addition to these aboriginal rights, the Hualapai Tribe possesses federal reserved water rights in accordance with the establishment of the Hualapai Reservation.

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The Hualapai Tribe's water rights have not been quantified because the United States has failed to pursue quantification, notwithstanding the repeated requests of the Tribe and the federal government's trust duty to protect those rights. In the Arizona v. California adjudication, the United States purported to represent the Tribe yet failed to pursue quantification of the Tribe's water rights. Tribal water rights above Lake Mead – including the rights of the Hualapai Tribe, the Navajo Nation and the Havasupai Tribe – were not quantified in Arizona v. California. See 376 U.S. 340, 353 (1964). While the decree in that case did not quantify these tribal rights, it also did not affect any Indian aboriginal or federal reserved water rights above Lake Mead. See id.

The fact that the Hualapai Tribe's federal reserved water rights are not quantified and are not presently fully used by the Tribe does not change their status as federal reserved water rights. Indian federal reserved water rights need not have identified, immediate uses to justify a duty of protection by the United States government. See Winters v. United States, 207 U.S. 564 (1908). Pursuant to the "Winters Doctrine," Indian federal reserved water rights are property rights which are intended to meet the present and future needs of Indian tribes and which vest no later than the establishment of the reservation, regardless of whether those rights have been adjudicated or otherwise formally permitted. See Arizona v. California, 373 U.S. 546, 598-600 (1963). In addition, Indian federal reserved water rights do not depend upon beneficial use for their initial or continued existence. See, e.g., Cappaert v. United States, 426 U.S. 128, 143-145 (1976).

The DOI has a Trust Duty to the Hualapai Tribe to Protect the Tribe's Indian Trust Assets, and must Explicitly Address the Proposed Action's Impacts on the Tribe's Trust Assets and Fully Mitigate or Avoid Those Impacts.

The federal government in its dealings with Indian Tribes is charged with "moral obligations of the highest responsibility and trust" and should be "judged by the most exacting fiduciary standard." Seminole Nation v. United States, 316 U.S. 286, 296 (1942). The DOI has adopted policies and procedures to ensure that its actions comply with the trust responsibility. DOI policy requires DOI to protect trust resources and conduct government-to-government consultation with tribes:

> It is the policy of the Department of Interior to recognize and fulfill its legal obligations to identify, protect, and conserve the trust resources of federally recognized Indian tribes and tribal members, and to consult with tribes on a government-to-government basis whenever plans or actions affect tribal trust resources, trust assets, or tribal health and safety.

512 DM 2.2 (Dec. 1995). See also Secretarial Order 3215, April 28, 2000.

Reclamation's own Indian Trust Asset Policy states that the "trust responsibility requires that all Federal agencies, including Reclamation, take all actions reasonably necessary to protect trust assets." See Bureau of Reclamation, Indian Trust Asset Policy (Aug. 31, 1994)

in Protection of Indian Trust Resources (compilation on file with the DOI) ("Reclamation Indian Trust Asset Policy").[2]

The Indian Trust Assets ("ITAs") entitled to protection under the trust responsibility include water rights. 512 DM 2.2 (Dec. 1995). Thus, DOI has a trust responsibility to take all actions reasonably necessary to protect the Hualapai Tribe's water rights.

To help avoid or mitigate ITA impacts, DOI has adopted procedures requiring ITA impacts to be analyzed during the NEPA process for proposed actions. DOI procedures require that "[a]ny effect [on Indian trust resources] must be explicitly addressed in the planning/decision documents, including, but not limited to . . . Environmental Impact Statements. . . ." 512 DM 2.4(A) (emphasis added). Such documents "shall . . . [e]xplain how the decision will be consistent with the DOI's trust responsibility." Id.

Reclamation's procedures similarly require the assessment of impacts on ITAs from "[a]ctions that could impact the value, use or enjoyment of the ITA." Bureau of Reclamation, Indian Trust Asset Policy and NEPA Implementing Procedures: Questions and Answers About the Policy and Procedures (hereinafter "ITA Q&A"), Section IV-4 at 9 (Aug. 31, 1994) in Protection of Indian Trust Resources. "Such actions could include interference with the exercise of a reserved water right." Id. "[A]ll impacts, both positive or negative, should be analyzed and discussed." Id. Unavoidable impacts should be fully mitigated:

> The first strategy should be to avoid causing significant adverse impacts. When this is not possible, an attempt should be made to minimize such impacts. If adverse impacts do occur, the next step is to identify mitigation or compensation measures to offset adverse impacts so that there is no net loss to the Indian beneficial owners of the asset.

ITA Q&A, Section V-1 at 13.

While DOI has implemented its ITA policies through NEPA for administrative convenience, DOI's legal duties with respect to ITAs are not limited to NEPA's procedural requirements. NEPA requires, as a procedural matter, that an environmental impact statement "shall provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment." 40 C.F.R. § 1502.1. By contrast, the trust duty is a substantive obligation to protect trust resources, not merely an obligation to make an informed decision.

[2] In February 1996, Secretary of the Interior Babbitt and Assistant Secretary Deer transmitted to Interior employees a compilation of the policies and procedures adopted by the bureaus and offices of the DOI relating to trust protection practices. This compilation is referred to herein as "Protection of Indian Trust Resources."

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1 In addition to NEPA and trust duty, DOI must comply with various applicable Executive Orders and Presidential Memoranda, including: Executive Order 13084 of May 14, 1998, "Consultation and Coordination with Indian Tribal Governments" 63 Fed. Reg. 27655 (May 19, 1998); Memorandum of April 29, 1994, "Government-to-Government Relations With Native American Tribal Governments," 59 Fed. Reg. 22951 (May 4, 1994); and Executive Order 12898 of February 11, 1994, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," 59 Fed. Reg. 7629 (February 16, 1994).

Executive Order 13084 provides in pertinent part:

> In formulating policies significantly or uniquely affecting Indian tribal governments, agencies shall be guided, to the extent permitted by law, by principles of respect for Indian tribal self-government and sovereignty, for tribal treaty and other rights, and for responsibilities that arise from the unique legal relationship between the Federal Government and Indian tribal governments.

E.O. 13084, § 2, 63 Fed. Reg. 27655.

President Clinton's Memorandum of April 29, 1994 requires federal agencies to ensure that they operate within a government-to-government relationship with federally recognized tribes, consult with tribal governments to the greatest extent permitted by law prior to taking actions that affect them, and:

> assess the impact of Federal Government plans, projects, programs, and activities on tribal trust resources and assure that tribal government rights and concerns are considered during the development of such plans, projects, programs and activities.

Memorandum of April 29, 1994, §§ (a), (b) and (c), 59 Fed. Reg. 22951.

Executive Order 12898 requires in pertinent part that:

> [t]o the greatest extent practicable and permitted by law, and consistent with the principles set forth in the report on the National Performance Review, each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs on minority populations and low-income populations.

E.O. 12898 § 1-101, 59 Fed. Reg. 7629.

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1: Reclamation respectfully believes that appropriate consultation with Indian Tribal Governments occurred with respect to the development of interim surplus criteria. A full listing of the consultations during the development of the interim surplus criteria is found in Section 5.4.

The Proposed Interim Surplus Criteria Would Have Significant Adverse Impacts on the Hualapai Tribe's Colorado River Water Rights.

The Supreme Court held in Arizona v. California that the water uses on each reservation within a Basin state must be accounted for out of the water allocated to that state. See 376 U.S. at 343. This means that the Hualapai Tribe's mainstream water rights are included in Arizona's 2.8 million acre-feet apportionment. Adoption of the surplus criteria will increase the Lower Basin States' reliance on the use of unquantified water rights, and thereby increase their incentive to oppose the quantification of unquantified Indian water rights in the Lower Basin. As a result, the Tribe's ability to access these waters for beneficial uses in the future will be jeopardized.

The DEIS acknowledges that the proposed action will diminish the ability of the tribes in the Ten Tribes Partnership to utilize their undeveloped Colorado River water rights in precisely this manner. The DEIS states:

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> **The Ten Tribes have a significant amount of undeveloped water rights. The availability of surplus water on the Colorado River is primarily a direct result of unused existing entitlements, including those of the tribes. The interim surplus criteria could make other entitlement holders develop a reliance on surplus water, provide a disincentive for those entitlement holders to support future development, and have the practical effect of diminishing the tribes' ability to utilize their entitlements.**

DEIS at 3.14-2.

The DEIS should acknowledge that the proposed action will also diminish the Hualapai Tribe's ability to utilize its entitlements for the same reasons. The inability to beneficially use its vast Colorado River water rights is unquestionably a significant impact on the Hualapai Tribe and its trust resources. Strangely, the DEIS is silent on the Hualapai Tribe's water rights, as discussed in the following section.

The DOI Violates NEPA and the Trust Duty by Ignoring the Proposed Action's Impacts on the Hualapai Tribe's Water Rights.

The DEIS fails to analyze – or even mention – the proposed action's impacts on the Hualapai Tribe's water rights. This omission is a violation of NEPA, the trust duty and Executive Order 12898.

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In Section 3.14, "Indian Trust Assets," the DEIS purports to analyze the proposed action's impacts on ITAs. In this section, the DEIS discusses the water rights of each of the tribes in the Ten Tribes Partnership and the tribes served by the CAP. Id. at 3.14-1 to 3.14-22. Section 3.14 includes a detailed analysis of impacts on the CAP tribes' water rights. Id. at 3.14-

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1a: The interim surplus criteria will not alter the quantity of priority of Tribal entitlements. In fact, as noted by the description of the Tribes' water rights above, the Tribes have the highest priority water rights on the Colorado River. Surplus determinations have been made by the Secretary since 1996, and surplus water supplies have been utilized by valid Colorado River contractors under the Secretary's annual surplus determinations since that date. Adoption of ISC will not make any additional surplus water available as compared with current conditions, but rather will provide more objective criteria for surplus determinations and will quantify the amounts of surplus water to be made available on an annual basis. Reclamation does not believe that identifying the limited amounts of surplus water will provide any additional disincentives for Tribal water development. Interim surplus criteria are also intended to complement efforts by California to reduce its over reliance on surplus water. The selection of any of the alternatives of this proposed action does not preclude any entitlement holder from using its water rights.

16 to 3.14-22. Section 3.14 provides the brief description of how the proposed action could impact the Ten Tribes Partnership tribes' water rights (quoted above at page 7), but fails to include a comparable analysis of impacts on their water rights. Id. at 3.14-2. However, this section says nothing at all about the Hualapai Tribe's water rights.

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We cannot fathom why DOI would ignore our water rights when it is well aware of them. The fact that the Hualapai Tribe's mainstream Colorado River water rights have not been adjudicated does not change their status as ITAs and does not excuse DOI from analyzing the impacts on those water rights. See page 4 above. Indeed, the DEIS at least discusses the Navajo Nation's unadjudicated mainstream Colorado River water rights, albeit without a meaningful analysis of the proposed action's impacts on those rights. DEIS at 3.14-5.

The DEIS also fails to disclose the proposed action's disproportionate impacts on the Hualapai Tribe in the "Environmental Justice" section of the document. The Hualapai Tribe clearly is a "minority" and "low-income" population within the meaning of Executive Order 12898 on Environmental Justice. The proposed action would have a disproportionate impact on the Hualapai Tribe (and similarly situated tribes, including the Navajo Nation and Huvasupai Tribe) by treating their unquantified Colorado River water rights as "surplus" water and making that water available for the benefit of predominately non-minority water users.

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Under the trust duty and policies and regulations discussed above, the DEIS must explicitly address the proposed action's impacts on the Hualapai Tribe's water rights and explain how the proposed action will be consistent with DOI's responsibility to protect these water rights. In addition, the DOI must ensure that the Hualapai Tribe's water rights are protected and the proposed action's impacts on those rights are avoided or sufficiently mitigated. We have repeatedly urged the DOI to quantify the Hualapai Tribe's water rights prior to or concurrent with actions -- including the establishment of surplus criteria -- that will significantly impact our ability to utilize our water rights.

Although we have asked DOI to quantify our water rights prior to or concurrent with adopting surplus criteria to ensure that our rights are protected, we understand that DOI nonetheless intends to issue the criteria by the end of this year. If DOI adheres to that schedule, then we demand that DOI immediately commence quantification of our water rights and complete quantification early in the implementation of the interim surplus criteria and prior to the first five year review of the interim surplus criteria. To do otherwise would irreparably diminish the Tribe's ability to utilize its water rights and would exacerbate DOI's past failures to protect the Tribe's water rights.

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The DOI Violates NEPA and the Trust Duty by Failing to Analyze the Proposed Action's Socioeconomic Impacts on the Hualapai Tribe.

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3: Unquantified Colorado River water rights cannot be analyzed and as such does not constitute an environmental justice issue for this EIS.

4: See response to Comment 49-1.

The DEIS also fails to analyze the proposed action's significant socioeconomic impacts on the Hualapai Tribe. These impacts stem from the diminishment of the Tribe's future ability to develop its water rights and from the anticipated unavailability of the Pearce Ferry boat take out due to the reduction in Lake Mead water levels. Because these impacts fall disproportionately on the Hualapai Tribe, they are environmental justice impacts as well as socioeconomic impacts.

The Hualapai Tribe's only hope for economic development, including tourism, rests in its ability to access sufficient water resources to sustain development. By increasing the Lower Basin States' dependence on unquantified mainstream Indian water rights and resistance to quantification of those rights, the proposed action will create formidable political and financial obstacles to the Tribe's access to sufficient water resources. Without a sustainable water supply for economic development, the Tribe cannot attain economic self-sufficiency. The DEIS completely ignores these significant impacts.

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The proposed action will also severely compromise Tribal revenues and job creation from river running. The Hualapai River Runners is the river-running operation of Grand Canyon Resort Corporation ("GCRC"), a Tribal corporation wholly owned by the Hualapai Tribe. Hualapai River Runners conducts guided white water river trips commencing at Diamond Creek, and float trips commencing at Quartermaster Canyon. All boats on these trips take out at Pearce Ferry. A portion of the payment for each trip is for a trespass fee imposed by Hualapai Tribal ordinance. The Tribe is entitled to receive from GCRC the trespass fees and a portion of the total revenues from the Hualapai River Runners' operations. The Tribe also levies sales tax on each trip sold by the Hualapai River Runners. In the past, the funds that the Tribe receives from the Hualapai River Runners operations have comprised a significant portion of the Tribal general fund budget, and the Tribe anticipates that these funds will also be an important Tribal revenue source in the future. The general fund budget supports social programs on the Reservation, including youth education and substance abuse rehabilitation programs. The jobs provided by Hualapai Rivers Runners are one of the few employment opportunities on the Reservation and are an important factor in fighting Reservation unemployment and poverty.

The DEIS fails to evaluate these significant impacts. Instead, the DEIS merely states that "[t]his concession [the Diamond Creek to Pearce Ferry river trips] may be affected if trips encounter changes in availability of the Pearce Ferry take out." DEIS at 3.9-34. There is no doubt that Hualapai River Runners would be significantly adversely impacted by the proposed action. As acknowledged in the DEIS, "[a]t pool elevations of 1170 feet msl, the Pearce Ferry take out is inaccessible and boaters must paddle an additional 16 miles to South Cove to take out." Id. The DEIS predicts that all alternatives except the Flood Control Alternative would reduce pool elevations below 1170 feet msl and the Flood Control Alternative would result in an elevation of 1171 feet msl. Id. Table 2-1 at 2-17. In fact, Pearce Ferry take out is likely to be inaccessible at higher pool elevations: a recourse manager for Lake Mead National Recreation Area advised the Hualapai Tribe this week that Pearce Ferry will be inaccessible

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5: Sections 3.9.2.2.3 and 3.9.2.3.2 of the FEIS have been expanded to include additional detail with regard to the importance of Pearce Ferry to the Hualapai, based on the Tribes comments on the DEIS. Note that although baseline conditions and the interim surplus criteria alternatives under consideration would result in increased probabilities for lower Lake Mead surface elevations over time, the primary influence on Lake Mead elevation reductions results from increases in Uper Basin depletions.

at 1183 msl because of sedimentation. Consequently, Hualapai River Runners trips would be forced to take out at South Cove under all alternatives. This impact is unacceptable.

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Taking out at South Cove would cost the Hualapai River Runners in fuel, time, safety, and labor costs, and will likely cost the Hualapai River Runners in lost business. A South Cove takeout would delay the takeout time by one to two hours, exhausting the river guides and preventing the Hualapai River Runners from meeting the timetables for the package tours through which a substantial portion of these trips are sold. If the Hualapai River Runners cannot meet these schedules, their business partners may cease booking blocks of trips with the Hualapai River Runners. The Hualapai Tribe would be harmed by lost sales tax, trespass fee payments and percentage of revenue entitlements, and by increased unemployment on the Reservation.

The DOI Violates NEPA, the Trust Duty, the NHPA, and Executive Order 13007 by Failing to Evaluate Cultural Resource Impacts, Protect Cultural Resources, and Consult with the Hualapai Tribe and Tribal Historic Preservation Officer.

The DOI has completely overlooked its duties to avoid adverse effects to Hualapai traditional cultural properties ("TCPs") on Hualapai Tribal lands and to preserve and provide Hualapai access to Hualapai TCPs and sacred sites on federal lands. The DOI has also failed to undertake the required consultation with the Hualapai Tribe and Tribal Historic Preservation Officer ("THPO") regarding these TCPs and sacred sites.

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Section 106 of the NHPA, 16 U.S.C. § 470f, requires federal agencies to take into account the effects of their "undertakings" (actions) on historic properties and to afford the Advisory Council on Historic Preservation an opportunity to comment. Congress amended the NHPA in 1992 to require consultation with Indian Tribes, to allow THPOs to assume the consultation and concurrence role afforded State Historic Preservation Officers ("SHPOs") for undertakings on tribal lands, and to clarify that properties of traditional religious and cultural importance to an Indian Tribe are eligible for inclusion on the National Register of Historic Places ("NRHP") (i.e., that they can be historic properties). See 16 U.S.C. §§ 470a(d)(2), 470a(d)(6)(A), and 470a(d)(6)(B). The Hualapai THPO assumed the role of the SHPO for Hualapai Tribal lands by agreement with the National Park Service in 1996.

The DEIS states that "Reclamation has determined development and implementation of interim surplus criteria meets the definition of an undertaking, but an undertaking that is without potential to effect historic properties." DEIS at 5-3. Hence, the DEIS concludes, "Reclamation has fulfilled its responsibilities to take into account the effects of the development and implementation of interim surplus criteria on historic properties." Id.

This conclusion is based on an erroneous assumption that "there is virtually no chance cultural resources retaining qualities that would qualify them for consideration as historic properties potentially eligible for inclusion on the NRHP exist within the [area of potential

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6: Thank you for your comments and for bringing to our attention your concerns regarding Reclamation's on-going operation of the Upper and Lower Colorado River. Per a request from the Nevada State Historic Preservation Officer (SHPO), the matter of effects to historic properties that might result from development of Interim Surplus Criteria (ISC) has been forwarded to the Advisory Council on Historic Preservation (Council). Development and implementation of ISC falls within the range of on-going operations, and the reservoirs and the River will continue to be operated within historic operational parameters under both baseline conditions and action alternatives. Because of this, Reclamation believes many of the issues you raise with regard to historic properties are better addressed under Section 110, rather than Section 106 of the National Historic Preservation Act. Reclamation is aware of its responsibilities under Section 110 for managing historic properties on lands under its jurisdiction and will commit to consulting with the Hualapai and other tribes within that framework. In accordance with the direction provided by EO 13007, Reclamation is also committed to working with the Hualapai and other tribes with ties to the Lower Colorado River to accommodate access to and use of sacred sites, and to the extent practicable, not adversely affect the physical integrity of sacred sites which have been identified by the tribes as being located on lands under its jurisdiction. If the Hualapai or other tribes have information concerning sacred sites that are being impacted by on-going reservoir and river operations, Reclamation urges the tribes to bring these situations to the attention of the appropriate Reclamation office.

effect] of the present undertaking" because these cultural resources "have been repeatedly inundated, exposed, and re-inundated" since Hoover Dam and Glen Canyon Dam were constructed. Id. at 3.13-5. In other words, DOI is assuming that water and weathering have rendered all otherwise eligible properties ineligible for the NRHP.

Such an assumption is not valid for "properties of traditional religious and cultural importance to an Indian Tribe" eligible for the NRHP under 16 U.S.C. §470a(d)(6)(A). The DEIS is apparently invoking the requirement under the criteria of NRHP eligibility that the property have "integrity of location, design, setting, materials, workmanship, feeling, and association." See 36 C.F.R. § 60.4. However, as explained in National Register Bulletin 38, "Guidelines for Evaluating and Documenting Traditional Cultural Properties":

> A property may retain its traditional cultural significance even though it has been substantially modified. . . . [T]he integrity of a possible traditional cultural property must be considered with reference to the views of traditional practitioners; if its integrity has not been lost in their eyes, it probably has sufficient integrity to justify further evaluation.

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National Park Service, National Register Bulletin 38, "Guidelines for Evaluating and Documenting Traditional Cultural Properties" at 10.

Moreover, a "structure" need not remain in order for a TCP to be a historic property eligible for the NRHP:

> Construction by human beings is a necessary attribute of buildings and structures, but districts, sites and objects do not have to be the products of, or contain, the work of human beings in order to be classified as properties. . . . A natural object such as a tree or a rock outcrop may be an eligible object if it is associated with a significant tradition or use.

Id. at 9.

Clearly, DOI cannot assume without consultation with the Hualapai Tribe and THPO that the proposed undertaking "is without the potential to effect" Hualapai TCPs. By these comments, the Hualapai Tribe and THPO place the DOI on notice that they believe Hualapai TCPs and sacred sites both on and off Hualapai tribal lands may be adversely affected by the proposed undertaking. DOI must consult with the Hualapai Tribe and THPO in compliance with NHPA § 106 and the Advisory Council's regulations at 36 C.F.R. Part 800. DOI also must fulfill its trust duty to the Hualapai Tribe to protect Hualapai TCPs located on Tribal lands as trust resources. To the extent consistent with the need to keep Hualapai TCP information confidential to protect the sites from vandalism and ensure that ceremonial use is not hindered, DOI also must disclose impacts on these sites in the DEIS.

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In addition, the proposed action may adversely affect Hualapai TCPs or sacred sites on federal lands in violation of Section 110 of the NHPA and Executive Order 13007 of May 24, 1996, "Indian Sacred Sites." The proposed action also may hinder access to and ceremonial use of Hualapai sacred sites on Federal lands in violation of Executive Order 13007.

Section 110 of the NHPA requires, among other things, that federal agencies preserve historic properties owned or controlled by them and provide a process for identifying and evaluating historic properties in consultation with Indian tribes. See 16 U.S.C. § 470h-2(a). Executive Order 13007 requires that:

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> In managing Federal lands, each executive branch agency with statutory or administrative responsibility for the management of Federal lands shall, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, (1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites.

E.O. 13007, § 1(a), 61 Fed. Reg. 26771 (May 29, 1996).

Executive Order 13007 further requires federal agencies with land management authority – including the DOI – to promptly implement procedures for carrying out the above requirement, including "procedures to ensure reasonable notice is provided of proposed actions . . . that may restrict future access to or ceremonial use of, or adversely affect the physical integrity of, sacred sites." Id. § 2(a). Such procedures must comply with the Presidential Memorandum of April 29, 1994 on "Government-to-Government Relations with Native American Tribal Governments." Id.

The proposed surplus criteria may affect access to or ceremonial use of, or adversely affect, Hualapai TCPs on sacred sites on federal lands, including lands within Lake Mead National Recreation Area or Grand Canyon National Park. In order to identify TCPs and sacred sites and determine whether such effects would occur, DOI must consult with the Hualapai Tribe and THPO.

To date, DOI has failed to conduct the consultation and evaluation required by NHPA §§ 106 and 110 and Executive Order 13007. DOI has also failed to analyze the impacts of the proposed action on Hualapai TCPs and cultural sites in violation of NEPA. DOI must comply with these duties prior to adopting surplus criteria.

7

The DOI is in Violation of Its Trust Duty by Failing to Consult with the Hualapai Tribe Regarding the Proposed Action, its Impacts and Appropriate Mitigation.

In addition to the consultation duty under NHPA §§ 106 and 110, DOI has a trust duty to consult with the Hualapai Tribe regarding the proposed action, its impacts and appropriate

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7: The operation of the Colorado River and the development of interim surplus criteria are complex and highly technical in nature. A considerable effort was made to balance the needs of all members of the public and write the DEIS in language that could be understood by both a technical and non-technical audience. The writers of the DEIS acknowledge the difficulty of accomplishing this task. For the FEIS, the writers of the document have made a further effort to use plain language whenever possible. Chapter 5 has been modified to more fully describe the process to consult with Tribes. Several meetings regarding interim surplus criteria were held in which the Hualapai Tribe was invited.

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mitigation, as discussed above on pages 4-6. DOI has failed to meet this duty to date, despite prompting by the Tribe.

The Hualapai Tribe has implored the DOI to work with the Tribe to quantify and protect its water rights numerous times over the years. In the past year, we have repeatedly requested consultation on several matters that are likely to have significant adverse impacts on the Hualapai Tribe's water rights. These matters include the proposed settlement in CAWCD v. United States, the reallocation of Central Arizona Project water supplies, and the proposed surplus criteria. For example, in April of this year we asked Deputy Secretary David Hayes to convene a consultation meeting with the Hualapai Tribe, the Havasupai Tribe and the Navajo Nation to discuss issues of mutual concern to these tribes. See letter from Louise Benson, Chairwoman, Hualapai Tribe, to David Hayes, Deputy Secretary of the Interior, April 7, 2000 (attached). In December 1999, we requested a meeting with Secretary Babbitt, Assistant Secretary Kevin Gover, and Solicitor John Leshy to discuss the Hualapai Tribe's Colorado River issues. This request was in response to the Secretary's public statement that the federal government should actively engage Indians in discussions regarding Colorado River water issues. See letter from Louise Benson, Chairperson, Hualapai Tribe, to Hon. Bruce Babbitt, Secretary of Interior, December 27, 1999 (attached). When we called the Secretary's office to arrange a meeting shortly after we sent this letter, we were informed that he did not have time to meet with us.

The DEIS may mislead decision makers to believe that DOI has consulted with the Hualapai Tribe on the Interim surplus criteria. The DEIS offers numerous broad assurances that the appropriate consultations with tribes have occurred. In Section 3.14, "Indian Trust Assets," the DEIS asserts that "Reclamation has entered into government-to-government consultations with potentially affected tribes to identify and address concerns for Indian trust assets." DEIS at 3.141. The DEIS further asserts that these "potentially affected tribes" include tribes in the Ten Tribes Partnership, tribes served by the Central Arizona Project ("CAP"), and unnamed "other interested tribes within the Lower Colorado Region." Id. Similarly, under the section headed "Environmental Justice," the DEIS asserts that "Reclamation has involved potentially affected tribes and the Bureau of Indian Affairs to identify and address tribal concerns. . . . This includes tribes with reservations along the Colorado River, as well as tribes with Colorado River water rights in the Basin States." Id. at 3.15-1 to 3.15-2. This section cites Section 3.14 and Chapter 5 of the DEIS. Chapter 5, entitled "Consultation and Coordination," simply asserts that "[s]ince May 1999, Reclamation has had numerous meetings with the various tribes who have an interest in the implementation of ISC." Id. at 5-4.

The Hualapai Tribe is plainly a "tribe with a reservation along the Colorado River," a "tribe with Colorado River water rights in the Basin States," and a "tribe with an interest in the implementation of the ISC." Yet DOI has not "involved" us in the process of developing the criteria and evaluating their impacts, much less formally consulted us as required by its legal obligations.

13

DOI has Failed to Make the DEIS a "Clear and Concise Statement" that is "Understandable" to the Public, in Violation of NEPA and Executive Order 12898.

As stated in the NEPA regulations of the Council on Environmental Quality ("CEQ"), "NEPA procedures must ensure that environmental information is available to public officials and citizens before decisions are made and before actions are taken." See 40 C.F.R. § 1500.1(b). To "make the NEPA process more useful to decisionmakers and the public," CEQ regulations specify that "Environmental impact statements shall be concise, clear, and to the point, and shall be supported by evidence that agencies have made the necessary environmental analyses." See id. §§ 1500.2(b) and 1502.1. CEQ regulations further require that "[e]nvironmental impact statements shall be written in plain language and may use appropriate graphics so that decisionmakers and the public can readily understand them." See id. § 1502.8.

Similarly, Executive Order 12898 requires that "[e]ach Federal agency shall work to ensure that public documents . . . relating to human health or the environment are concise, understandable, and readily accessible to the public." Executive Order 12898, § 5-5(c), 59 Fed. Reg. 7629 (emphasis added). As explained in President Clinton's Memorandum on Environmental Justice accompanying Executive Order 12898, one of the purposes of that order is "to provide minority communities and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment." Memorandum on Environmental Justice, February 11, 1994, Pub. Papers of the President, 1994 Book 1 at 241.

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The DEIS for the proposed interim surplus criteria fails to meet these standards for plain language, understandability, and low-income and minority community access. The hydrology modeling discussion, in particular, is so technical as to be incomprehensible to anyone lacking advanced education in hydrology. The graphs used to illustrate the text only make the concepts more difficult to understand. Yet understanding the hydrology modeling discussion is essential to understanding the environmental impacts of the proposed action because virtually all of the impact analysis is based on the hydrology model output. This defect in the DEIS has hindered the Hualapai Tribe's ability to understand, review and comment on the DEIS.

For example, the Tribe has concerns about the impacts of Lake Mead water elevations on the water quality, aquatic resources, cultural resources and shorelines and shoreline vegetation, as well as the potential for further inundation of the Tribe' lands. However, the Tribe cannot independently assess these impacts and develop comments on them because the hydrology modeling discussion is so incomprehensible.

Accordingly, the DEIS should be rewritten in plain language and recirculated for public comment.

14

8: The DEIS and FEIS are technical documents and as such, contain substantial technical information. Reclamation has made every effort possible to provide extensive, understandable explanations of the technical analysis in the DEIS and FEIS. Further, during the public comment period, Reclamation conducted technical meetings and public hearings to receive questions and provide explanation on the technical aspects of the studies conducted and information presented in the DEIS. The dates and times of these meetings were published in letters mailed to interested parties, local newspapers and in the Federal Register. Furthermore, Reclamation also accommodated various agencies and other entities by meeting with them, at their request, to provide explanation on the technical aspects of the studies conducted and information presented in the DEIS. As such, Reclamation is of the opinion that it has made every effort possible to meet or exceed the standards for plain language, understandability, and low-income and minority community access. Chapter 5 of the FEIS entitled "Consultation and Coordination" includes Reclamation's public involvement process and coordination. See also response to Comment 49-7.

Conclusion and Request for Compliance, Consultation, and Quantification of the Hualapai Tribe's Colorado River Water Rights.

For the reasons discussed above, DOI is in violation of its trust duty to the Hualapai Tribe, its NEPA obligation to disclose the proposed action's significant impacts on the Hualapai Tribe and its trust resources, its NHPA §§ 106 and 110 duties with regard to Hualapai TCPs, its obligations under Executive Orders 12898, 13007, and 13084, and its associated consultation and mitigation duties. To bring DOI into compliance with these duties, the Hualapai Tribe urges DOI to:

1. **Immediately commence quantification of our Colorado River water rights and complete quantification early in the implementation of the interim surplus criteria and prior to the first five year review of the interim surplus criteria;**
2. **Revise the DEIS to include analysis of the impacts on the Hualapai Tribe's water rights;**
3. **Revise the DEIS to include analysis of the socioeconomic impacts on the Hualapai Tribe;**
4. **Comply with the NHPA § 106 process for taking into account the proposed action's impacts on cultural resources of concern to the Hualapai Tribe;**
5. **Protect the integrity of and access to Hualapai sacred sites on federal lands;**
6. **Mitigate significant Hualapai socioeconomic, environmental justice and cultural resource impacts;**
7. **Rewrite the DEIS in plain language;**
8. **Recirculate the DEIS for public comment after making the revisions requested above; and**
9. **Complete all of the foregoing through government-to-government consultation with the Hualapai Tribe.**

So that we may expeditiously begin the required consultation, we urge DOI to contact immediately Hualapai Chairperson Louise Benson, Director of Natural Resources Clay Bravo, and Tribal Historic Preservation Officer Monza Honga to schedule a meeting in September 2000 with Deputy Secretary Hayes and Ms. Debbie Saint of Reclamation's Lower Colorado Regional Office.

15

HUALAPAI NATION
OFFICE OF THE CHAIRMAN

Louise Benson
Chairman

P.O. Box 179 • Peach Springs, Arizona 86434 • (520) 769-2216

Aaron Mapatis
Vice Chairman

The Honorable Bruce Babbitt
United States Department of the Interior
Office of the Secretary
1849 C. St. N.W.
Washington, D.C. 20240

December 27, 1999

Mr. Secretary:

At the Colorado River Water User's Association Meeting in Las Vegas, Nevada on December 17th, you addressed the audience stating there are two priorities in the next millennium: the Environment and Indians. You also stated that the Federal Government should actively engage Indians in discussions regarding Colorado River Water Issues.

In light of your speech, the Hualapai Tribe respectfully requests to have a meeting with yourself, Assistant Secretary, Mr. Kevin Gover, and Department of Interior Solicitor, Mr. John Leshy, to discuss the Colorado River issues of our Tribe.

The Tribe remembers the promise you made in 1994, during the California Condor release at Vermillion Cliffs, to visit the Reservation. We will be contacting your office after the New Year to set a meeting date. If there are any questions, please contact myself or Clay Bravo, Director of Natural Resources at 520-769-2255.

Sincerely,
HUALAPAI TRIBAL COUNCIL

Louise Benson,
Chairperson

This document is an attachment ot the Hualapai Nation's Septermber 8, 2000 comment letter. All relevant comments are addressed above in response to the September 8, 2000 letter.

HUALAPAI NATION
OFFICE OF THE CHAIRMAN
Chairman
P.O. Box 179 • Peach Springs, Arizona 86434 • (520) 769-2216
Vice Chairman

April 7, 2000

Mr. David Hayes
Deputy Secretary of the Interior - MS 7229
1849 C Street NW
Washington, DC 20240

RE: Proposed Stipulated Settlement - *CAWCD v. U.S.*

Dear Mr. Hayes:

Although the Hualapai Tribe of Arizona has myriad concerns regarding its reserved rights claims to the waters of the Colorado River mainstream, these comments are submitted in the context of the proposed stipulation intended to accomplish the settlement of the above referenced case. It is our hope that you will consider an early meeting with the Hualapai Tribe, together with the Havasupai Tribe and Navajo Nation, to discuss issues of mutual concern to these tribes. To that end, the Hualapai Tribe assures you that it is in unity with the concerns expressed by the Navajo Nation in its letter to you dated April 4, 2000.

The Tribe, likewise, expresses the concerns set forth in the comments submitted by the Ten Tribes Partnership regarding the proposed stipulation. The briefing held in Phoenix on March 14, 2000, provided very little opportunity for those in attendance to adequately express their concerns, both because of short notice of the briefing and the limited time available to discuss the implications of the proposal upon the water rights of the mainstream Tribes, both adjudicated and unadjudicated.

The Colorado River is the northern boundary of the Hualapai Reservation (which encompasses the lower portion of the Grand Canyon) for a distance of approximately one hundred twenty miles. It is superfluous to say that this is an area of great natural beauty which has been inhabited by the Hualapai since time immemorial. Although some economic benefit is realized from a development known as Grand Canyon West and through fees paid by outfitters

This document is an attachment to the Hualapai Nation's September 8, 2000 comment letter. All relevant comments are addressed above in the response to the September 8, 2000 letter.

and guides, with a sustainable water supply the potential for future development and use of this area to the benefit of the Tribe is enormous, if done in a culturally sensitive manner.

The Tribe has subsisted on this land for hundreds of years, using the meager water resources available on tributary systems due to the lack of financial resources and the will of the United States to quantify and assist in the development of the Tribe's mainstream water rights in one of the great rivers of North America, which fortuitously flows through the Reservation. In *Arizona v. California*, the United States filed a claim on behalf of the Tribe only to abandon it without explanation. Some forty years later, the Tribe's trustee has neglected to take any action to protect the Tribe's water. Now, because the proposed action of the Department jeopardizes the future ability of the Tribe to access these waters for beneficial uses, the Tribe will fall further behind in its drive toward economic self-sufficiency.

The Navajo Nation has made a very coherent case for the quantification and development of the mainstream rights of the three tribes omitted in the *Arizona v. California* adjudication prior to, or at the least in conjunction with, the CAWCD settlement. To avoid redundancy, the Tribe will not repeat that analysis. The failure to quantify and protect the tribe's rights in the mainstream adjudication was a clear breach of trust. We believe that the Department will compound this breach of trust responsibility by going forward with this settlement without first addressing Hualapai's mainstream rights. The Tribe's only hope for development, including tourism, rests in its ability to access sufficient water resources to sustain such development. The settlement of this action, as proposed, may well deprive the Tribe of this one opportunity at self-sufficiency.

On behalf of the Hualapai Tribe, I urge you to convene an early meeting with the three mainstream tribes whose rights are not protected by decree. Thank you for your consideration.

Very truly yours,

Louise Benson

Louise Benson, Chairwoman

NAVAJO NATION DEPARTMENT OF JUSTICE
OFFICE OF THE ATTORNEY GENERAL

LEVON B. HENRY
ATTORNEY GENERAL

BRITT E. CLAPHAM, II
DEPUTY ATTORNEY GENERAL

September 8, 2000

VIA TELEFAX : 702-293-8042 & email: jharkins@lc.usbr.gov.

Jayne Harkins
Attention BCOO-4600
Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 49006-1470

Re: Draft Environmental Impact Statement ("Draft EIS or DEIS") on the Colorado River Interim Surplus Criteria

Dear Ms. Harkins:

Please consider this letter as comments submitted on behalf of the Navajo Nation concerning the above-referenced Draft EIS. These comments are intended to supplement the comments submitted by the Colorado River Basin Tribes Partnership on behalf of the ten tribes, including the Navajo Nation, with Colorado River allocations. Those comments will not be reiterated here, but should be considered as submitted by the Navajo Nation as though fully set forth herein.

GENERAL COMMENTS

In general, the Draft EIS is a fundamentally flawed document since no effort was made to account for the unquantified water rights of the mainstream tribes above Lake Mead in Arizona: the Navajo Nation,[1] the Havasupai Tribe, and the Hualapai Tribe (herein "the Arizona Mainstream Tribes above Lake Mead"). Reclamation, in all of its capacities relating to Colorado River operations, has historically ignored the rights of the Arizona Mainstream Tribes above Lake Mead to a quantity of Colorado River, and the Draft EIS continues this practice. The Draft EIS is also fundamentally flawed because Reclamation does not recognize tribal entitlements to Colorado River water, whether quantified or unquantified, to constitute an Indian Trust Asset to be protected from

[1] The Navajo Nation has submitted extensive comments to the Bureau of Reclamation concerning its unquantified mainstream water rights. *See:* Letter to Bruce Ellis, re Draft Environmental Impact Statement (EIS) on the Allocation of Water Supply and Long-Term Contract Execution, Central Arizona Project (CAP), Arizona, August 23, 2000 with attachments: Letter to Bruce Ellis, re Public Scoping for Proposed Allocation of Water Supply and Expected Long-Term Contract Execution, CAP, September 27, 1999; Letter to Carol Lynn Erwin, Area Manager, Bureau of Reclamation - Phoenix Area Office, re Nonbinding Plans to Use Reallocated Water from the CAP, December 29, 1999; Letter to Bruce Ellis, re Supplemental Comments re Public Scoping for Proposed Allocation of Water Supply and Expected Long-Term Contract Execution, CAP; Letter to David J. Hayes, Deputy Secretary, Department of the Interior, re Navajo-Mainstream Claims, April 4, 2000; and Letter to Secretary Babbitt, re Navajo Mainstream Colorado River Rights in Arizona, August 1, 2000.

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adverse impacts resulting from Reclamation policies and actions. DEIS at 3.14-1. Given the short shrift afforded the quantified water rights of the ten tribes, it is axiomatic that Reclamation would simply ignore the unquantified claims of the Arizona Mainstream Tribes above Lake Mead.

SPECIFIC COMMENTS

1. The Draft EIS Does Not Consider the Unquantified Water Rights of the Navajo Nation and the other Arizona Mainstream Tribes Above Lake Mead.

1

The Draft EIS makes no effort to incorporate an allocation of water for the Arizona Mainstream Tribes above Lake Mead in the analyses of the various surplus criteria, including the status quo. Reclamation merely acknowledges that "some tribal rights remain unadjudicated" (DEIS at 1-11). However, the discussion in the DEIS of the interests of the State of Arizona does not make reference to the claims of the Arizona Mainstream Tribes above Lake Mead. Therefore, no analysis was made of the potential impacts that may be visited on such claims through the adoption of the various surplus criteria, nor was any analysis made concerning how water uses by those tribes could affect the availability of water under the various surplus criteria.

In *Arizona v. California*[2] the Supreme Court did not attempt to quantify the water rights of the Mainstream Tribes above Lake Mead. Nevertheless, the Supreme Court recognized that any use of water above Lake Mead must be charged against the state in which such use is made.[3] Neither the 1964 Decree nor the 1979 Decree specifies a water right for the Navajo Nation, the Hualapai Tribe, or the Havasupai Tribe for mainstream water. However, if these tribes were allocated Colorado River water, the amount of water available to the Central Arizona Project would be diminished, affecting all the surplus criteria scenarios.

2. The Failure to Consider the Unquantified Water Rights of the Navajo Nation Further Ensures the Continued Reliance by the Lower Basin States on Such Water Supplies.

2

By failing to acknowledge the unquantified water rights of the Navajo Nation, Reclamation continues to manage the Colorado River in a manner that ensures that other interests will continue to rely on water supplies claimed by, reserved for, and potentially belonging to the Navajo Nation. Reclamation has an affirmative obligation to operate federal water projects, such as Glen Canyon Dam and Hoover Dam, consistent with "vested, fairly implied senior Indian water rights."[4] As a general matter, the surplus criteria proposed by California and the Six States, effectively trade future shortage protection for interim surplus. Under such scenarios, it is logical to expect that the Lower

[2] *Arizona v. California*, 373 U.S. 546 (1963).

[3] 373 U.S. at 591.

[4] *Memorandum to Regional Director, Region One, U.S.F.W.S. et al.*, January 9, 1997; see also: *Kittitas Reclamation District v. Sunnyside Valley Irrigation District*, 763 F.2d 1032 (9th Cir.), *cert. denied*, 474 U.S. 1032 (1985), and *Joint Board of Control of Flathead, Mission and Jocko Irrigation Districts*, 832 F.2d 1127 (9th Cir. 1987). The Ninth Circuit recently affirmed these principles. Klamath Water Users Protective Assn v. Patterson, 191 F.3d 1115, 1122-23 (9th Cir. 1999) ("[T]he United States, as trustee for the Tribes, has a responsibility to protect their rights and resources...Because Reclamation maintains control of the Dam, it has a responsibility to divert the water and resources needed to fulfill the Tribes' rights, rights that take precedence over any alleged rights of the Irrigators.")

1: Comment noted.

2: See response to Comment 52-1.

Basin States will have even more incentive to resist allocations of mainstream water for the Navajo Nation and the other Mainstream Tribes above Lake Mead.

2 cont'd

In the comments submitted by the Ten Tribes Partnership, the Partnership notes that Reclamation, through its operations generally, and through the proposed surplus criteria specifically, is continuing to institutionalize the reliance by the Lower Basin States on unused tribal water supplies. Such reliance creates political disincentives for the development of the tribes' water supplies. In the case of Navajo Nation, the Lower Basin States rely on the lack of quantification of the Navajo right as a basis for their continued use of Colorado River water potentially belonging to the Navajo Nation. This not only creates institutional incentive against the development of Navajo water supplies, but it creates institutional incentives and political opposition against the efforts of the Navajo Nation to receive an allocation of Colorado River water and to otherwise quantify its mainstream water rights. The Draft EIS contains no analysis of the impacts attributable to the various surplus criteria on the ability of the Arizona Mainstream Tribes above Lake Mead to obtain Colorado River allocations: therefore, the Indian Trust Asset analysis is entirely deficient for these tribes.

3. The High Priority of Indian Water Rights Does Not Reduce the Institutional Reliance on Surplus Water Nor Diminish the Disincentive Against Tribal Water Development.

At S.3.14.2, concerning the Indian Trust Assets[5] of the Ten Tribes Partnership, the Draft EIS acknowledges that:

> The interim surplus criteria could make other entitlement holders develop a reliance on surplus water, provide a disincentive for those entitlement holders to support future development, and have the practical effect of diminishing the tribes' ability to utilize their entitlements.

3

(DEIS at 3.14-2.) Reclamation's explanation that the "interim surplus criteria will not alter the quantity or priority of the tribal entitlements" is entirely inapposite. The institutional reliance on unused tribal water creates disincentives toward tribal water development *notwithstanding* the high priority of such rights. The tribes lack the political clout to develop their water. Because tribal water has such high priorities, non-Indian water users will use their political clout to ensure that tribal water is not developed, thereby protecting non-Indian water supplies.[6] In the case of Navajo Nation, its claim for Colorado River water with an early priority only ensures the continued opposition by the Lower Basin States to the quantification of the Navajo right. The claimed early priority provides no protection from the institutional opposition to such a claim. The Draft EIS does not acknowledge the potential claims; therefore, it offers no analysis of how the various surplus criteria would affect such claims. The Draft EIS is entirely deficient in this respect and should be redone.

[5] The comments here will not attempt to address Reclamation's absurd contention that tribal entitlements to present perfected federal reserved rights are not ITAs. (DEIS at 3.14-1.) That contention is addressed in the comments submitted by the Ten Tribes Partnership.

[6] *See* John B. Weldon, Jr., *Non-Indian Water User's Goals: More is Better, All is Best* in INDIAN WATER IN THE NEW WEST 79, 83 (1993)("[M]any non-Indian appropriators would prefer to use political clout in Congress to prevent the tribes from obtaining the funds necessary to exercise their reserved rights.")

3: Reclamation respectfully disagrees and does not believe that the DEIS is deficient. Reclamation does not believe that identifying the limited amounts of surplus water will provide any additional disincentives for Tribal water development.

4

Jayne Harkins, Bureau of Reclamation
Re: DEIS on the Colorado River Interim Surplus Criteria
September 8, 2000
Page 4

4. The Draft EIS Does Not Adequately Address the Impacts of Fluctuating Water Levels at Lake Powell on the Navajo Nation's Marina.

4 At S.3.14.2.3, concerning the Indian Trust Assets of the Navajo Indian Reservation the Draft EIS acknowledges that the Navajo Nation operates a marina at Lake Powell and the boat ramp is not operational when the lake level drops below 3,677 feet msl. (DEIS at 3.14-5.) Reference is made to Section 3.9.2.3.1 concerning Lake Powell elevations. Under the shortage criteria proposed by California and the Six States (and the Shortage Protection Alternative), lake levels would be significantly lower than under baseline conditions and the flood control alternative. It is not sufficient for the EIS to merely identify impacts; the EIS must identify how such impacts can be mitigated, particularly when Indian Trust Assets are involved.

5. The Draft EIS Mischaracterizes the Nature of Arizona's Upper Basin Apportionment.

5 In at least two separate sections, the Draft EIS mischaracterizes Arizona's Upper Basin apportionment of 50,000 acre-feet as a right to the *delivery* of water above Glen Canyon Dam. (DEIS at 1-18[7] & 3.4-3.[8]) This characterization is not consistent with Reclamations practice of counting every *use* of water by the Navajo Nation in the Upper Basin of Arizona against Arizona's Upper Basin apportionment of 50,000 acre-feet. Despite Reclamation's accounting procedures, there is no basis in the Upper Colorado River Basin Compact for the water uses by the Navajo Nation to be constrained by the Compact.[9]

Conclusion

For reasons expressed in this letter, the Draft EIS is fundamentally flawed. The Draft EIS does not consider the implications of the unquantified Navajo mainstream Colorado River rights or how the implementation of the various surplus criteria adversely interferes with the Navajo Nation's efforts to settle or quantify such mainstream rights.

Sincerely,

NAVAJO NATION DEPARTMENT OF JUSTICE

Stanley M. Pollack
Water Rights Counsel

[7] "In Arizona, there are several points of diversion plus up to 50,000 af delivered above Glen Canyon Dam." The reference to Glen Canyon Dam should be to Lees Ferry. Nevertheless, very little water is actually delivered above the dam. Instead, Reclamation charges all water uses by the Navajo Nation in the Arizona portion of the Upper Basin against Arizona's 50,000 acre-foot apportionment.

[8] "In addition, Arizona is also charged for use of water pumped from Lake Powell under the state's Upper Basin apportionment of 50,000 afy." Arizona is charged for water *used*, not necessarily *pumped*.

[9] *See* Article XIX (a) Upper Colorado River Basin Compact, 1948 ("Nothing in this Compact shall be construed as: (a) Affecting the obligations of the United States of America to Indian tribes.").

4: See response to Comment 51-3(b).

5: Upper Basin accounting procedures are based on use, not delivery, and the Compact point is a better reference point for the Upper Basin than Glen Canyon Dam. The FEIS has been modified accordingly. Please see response to Comment 50-1 regarding resolution to Tribal water rights being constrained by the Upper Colorado River Basin Compact.

NAVAJO TRIBAL UTILITY AUTHORITY
AN ENTERPRISE OF THE NAVAJO NATION

September 7, 2000

Ms. Jayne Harkins
Bureau of Reclamation
Attn: BCOO – 4600
P.O. Box 61470
Boulder City, NV 89006-1470

RE: Comments on Draft EIS on Colorado River Interim Surplus Criteria

Dear Ms. Harkins:

The Navajo Tribal Utility Authority (NTUA) has numerous interests in the operation of dams in the Upper and Lower Colorado River Basins. NTUA has reviewed the Draft EIS on the Interim Surplus Criteria and finds that there will be significant impacts to NTUA. NTUA has the following concerns and comments on the scope of the proposed EIS.

1 a. NTUA is a member of the Colorado River Energy Distributors Association and purchases approximately 22 MW of hydropower from the Colorado River Storage Project (CRSP). We feel that generating capacity at Glen Canyon Dam will be reduced and higher cost replacement power will impact NTUA significantly.

2 b. The existence of Lake Powell will also be affected in some manner and will have an impact on NTUA's, and the Navajo Nation's, plans to capitalize on tourism and economic development on the Lake. NTUA has expended considerable energy and resources on the development of Antelope Point Marina at Lake Powell and we are concerned.

3 c. Water in the Colorado River, its tributaries, and the associated lakes are sources of Indian water rights. For example, water in Lake Powell helps the Upper Colorado River Basin meet its commitments to Lower Basin States under the Colorado River Compact of 1922, thus, firming up the water supply for the Navajo Indian Irrigation Project. Calls of water from the Upper Basin are made from Lake Powell and may be affected from

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1: Please see response to Comment 16-2.

2: Reclamation recognizes the Navajo Nation's concerns with regard to facilities at Antelope Point. Section 3.9 of the EIS discusses potential effects of interim surplus criteria on shoreline facilities at Lake Powell, including those at Antelope Point. The analysis in Section 3.9 of the FEIS has been modified to consider the probability of Lake Powell surface elevations occuring below 3,677 ft msl (as opposed to an elevation of 3,670 ft msl considered in the DEIS) and 3626 ft msl, based upon information provided by the NPS and the Navajo Nation.

3: (a) Reclamation recognizes that the Navajo Nation is a preference customer at Glen Canyon Dam. The status of a Tribe doesn't sanction any more of a status than that of a preference customer. This action will in no way affect the Tribes right to the power. Impacts to the power and energy produced at Glen Canyon Dam are found in Section 3.10. The Department does not view this as a trust asset as we are not affecting the contract right to the power. (b) Section 3.9.2.2.2 discusses impacts to Lake Powell and the operation of Antelope Point Marina. Reclamation and the Department have considered the analysis and feel the ISC alternatives are minor impacts to Lake Powell elevations. Reclamation and the Department believe that inflows and increasing UB depletions will have a greater impact on Lake Powell water surface elevations. The Marina and any other economic ventures on Lake Powell need to take into consideration the normal operational ranges of Lake Powell. (c) In the DEIS, Reclamation attempted to consider all Indian water rights that could be affected by interim surplus criteria, covering both adjudicated and non-adjudicated water rights. For the FEIS, Reclamation's RiverWare model, which simulates the operation of the Colorado River Basin, was modified to more accurately and precisely account for Indian water rights.

cont'd

interim surplus criteria. The draft EIS must include Indian water rights which are vested property rights to meet the present and future needs of Indian Tribes, regardless of whether those rights have been adjudicated or otherwise formally recognized and regardless of whether those rights have been exercised.

The impacts of the surplus criteria on NTUA deserve full analysis and discussion in the EIS process. NTUA will be willing to assist in any way possible to achieve this goal. I can be reached at (520) 729-6203 or email bhanley@ntua.com.

Sincerely yours,

Benjamin W. Hanley
Government Liaison

Sep-08-00 07:57A Ute Mtn Chairman's Office (970) 565-2313 P.01

OFFICE OF THE CHAIRMAN

Ernest House, Sr.
Chairman
Ute Mountain Ute Tribe

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(970) 564-5615 Fax
e-mail address: chouse@ute-mountain.org

September 7, 2000

Jane Harkins
USBR
Boulder City, NV

FAX: 702-293-8042

Re: Colorado River Interim Surplus Criteria DEIS

While we appreciate USBR's survey of Ute Mountain Ute Tribe reserved water rights set forth in the DEIS, we are concerned that Reclamation fails to set forth in the document any commitment to protect these important Indian trust assets.

1 On one hand Reclamation acknowledges it has a duty to protect the Ute Mountain Ute Tribe's water rights (p.3-14-1), but on the other hand Reclamation ignores the Tribe's concern that the surplus criteria analysis will perpetuate California's reliance on unused Tribal water (p.3-14-2). Reclamation needs to stand up and make an affirmative

2 statement in the final environmental impact statement and in the underlying record of decision that its Lower Colorado River Water Master policies will never be utilized to reduce directly or indirectly the development of the Ute Mountain Ute Tribe's water rights. We request on behalf of our Tribe and the other Tribes in the Upper and Lower Basin that such a commitment be expressly stated in the final EIS.

Thank you for this opportunity to comment.

Very truly yours,

Ernest House, Sr., Tribal Chairman
Ute Mountain Ute Tribe

1: The Department is working closely with the State of California to reduce its over reliance of Colorado River water. The selection of the Basin State alternative as the preferred alternative brings with it satisfactory progress measures and reversion to conservative surplus criteria if those progress measures are not met. The Depratment believes this will provide incentive to California to reduce its use of Colorado River water.

2: In response, Reclamation states that its policies with respect to the proposed action will not serve to reduce the development of the Ute Mountatin Ute Tribe's water rights.

NORDHAUS HALTOM TAYLOR
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SARAH S. WORKS
STEPHEN H. GREETHAM

September 8, 2000

VIA E-MAIL TO jharkins@lc.usbr.gov, AND FACSIMILE TO (702) 293-8042 AND FIRST-CLASS MAIL

4600

Regional Director Robert Johnson
Bureau of Reclamation Lower Colorado Region
c/o Jayne Harkins
BC00-4600
P.O. Box 61470
Boulder City, NV 89006-1470

Re: **Colorado River Interim Surplus Criteria Draft Environmental Impact Statement (July 2000)**

Dear Mr. Johnson and Ms. Harkins:

The Nordhaus Law Firm is general counsel to the Jicarilla Apache Tribe. The Jicarilla Apache Tribe, through its designated representative, Mr. Joe Muniz, is serving as President of the Colorado River Basin Tribes Partnership, which is also known as the Ten Tribes Partnership. On behalf of Mr. Muniz, I am transmitting with this cover letter the comments of the Ten Tribes Partnership to the above-referenced draft environmental impact statement.

Attachment A to the Ten Tribes Partnership's comments cannot be e-mailed, but will be included in the fax and in the hard copy that are being sent to you this day.

Very truly yours,

NORDHAUS, HALTOM, TAYLOR,
TARADASH & BLADH, LLP

Jessica R. Aberly

Mr. Johnson and Ms. Harkins
September 8, 2000
Page 2

JRA\slg

Enclosure: Ten Tribes Partnership Comments on the Colorado River Interim Surplus Criteria Draft Environmental Impact Statement

cc: Designated Representatives and Legal Counsel for the Partnership's Member Tribes
Mr. Ron Bliesner and Mr. Andrew Keller, Ketler-Bliesner Engineering, Technical Consultants for the Ten Tribes Partnership

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TEN TRIBES PARTNERSHIP COMMENTS ON THE COLORADO RIVER INTERIM SURPLUS CRITERIA DRAFT ENVIRONMENTAL IMPACT STATEMENT

INTRODUCTION

The Colorado River Basin Tribes Partnership is composed of four tribes with quantified or otherwise congressionally-sanctioned water rights in the Upper Colorado River Basin, including the Ute Indian Tribe of the Uintah and Ouray Reservation, Southern Ute Indian Tribe, Ute Mountain Ute Tribe, and Jicarilla Apache Tribe; and, five tribes in the Lower Colorado River Basin whose water rights on the mainstream of the Colorado River were decreed in *Arizona v. California,* including the Fort Mojave Indian Tribe, Colorado River Indian Tribes, Chemehuevi Indian Tribe, Cocopah Indian Tribe, and the Quechan Indian Tribe. The tenth member is the Navajo Nation, which has quantified or otherwise congressionally-sanctioned water rights in both the Upper and Lower Basin. The Partnership is informally called the Ten Tribes Partnership and referenced as such throughout this document. References to Tribal, Tribe, and Indian throughout this text refer to the Partnership Tribes only and not to other Indian tribes within the Colorado River Basin.

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The Colorado River Interim Surplus Criteria – Draft Environmental Impact Statement ("DEIS") is deeply and fatally flawed. It fails to take into account and analyze the impacts of the various surplus scenarios on the water right assets of the Partnership's members. These water rights are Indian trust assets and, therefore, entitled to the highest degree of impact analysis and protection by the Bureau of Reclamation ("Reclamation"). The DEIS fails to provide even minimal analysis of impacts and, with respect to the five Tribes located in the Lower Basin, complete disavows any obligation to do so. The lack of an analysis of the impacts on the Partnership members' trust resources, as recommended by the Partnership throughout its consultation with Reclamation, undermines the accuracy, thoroughness, and adequacy of the DEIS and requires that the

1: The statement in the DEIS made by Reclamaton was in error. This statement has been modified.

1 cont'd | analysis now be properly completed and a revised DEIS be published for public review and comment.

The Partnership's comments are set forth below. First, we address the various legal misstatements and legal inadequacies within the document. These are followed by our technical comments which more specifically address the nature of the Tribes' water rights and the analysis required to fully describe and address the impacts on those trust assets.

LEGAL ISSUES AND COMMENTS

I. THE WATER RIGHTS OF ALL TEN PARTNERSHIP TRIBES ARE INDIAN TRUST ASSETS AND MUST BE TREATED AS UNIQUE IN THE DEIS ANALYSIS

2 | The DEIS's discussion of Indian Trust Assets ("ITAs"), beginning at page 3.14-1, contains confusing misstatements regarding the legal status of the Partnership Tribes' water rights and an inadequate analysis of the impacts of interim surplus criteria on those trust assets. Contrary to all law and in conflict with the position taken by the United States at least since the negotiation of the Colorado River Compact of 1922, the DEIS asserts that the United States does not hold the water rights which were reserved in trust for the benefit of the Fort Mojave, Colorado River, Chemehuevi, Cocopah and Quechan Tribes ("Five Lower Basin Tribes"). However, the discussion that follows this inexplicable and unsupportable contention refers to the water rights of the "Ten Tribes." *See* DEIS at 3.14-2. Of course, there is no principled basis for the position in the DEIS that the water rights of the Five Lower Basin Tribes are not held in trust and should not be treated as ITAs.

3 | The Department of the Interior's ("Interior") fundamental error in refusing to acknowledge its trust duties cannot be cured in the absence of a new draft environmental impact statement. In short, Interior's denial of its trust responsibilities contaminates the entire analysis of the potential effect on the Five Lower Basin Tribes of the implementation of surplus criteria. Having concluded in the DEIS that it has no trust responsibility related to the Five Tribes' water rights, Interior, by definition, could not have properly considered those obligations in its analysis of the surplus criteria. Indeed, in addition to Interior's trust responsibilities, it is clear that the Tribal water rights hold a unique status within the "Law of the River," which status requires Interior to examine such rights independently rather than merely including the tribal rights among the other rights that are treated as part of the "system" water supply. Interior never conducted such an analysis. Because Interior never sought to investigate the effect on the tribal water rights from its perspective as trustee for the Five Lower Basin Tribes nor did it account for the unique status of the tribal rights on the River, it must now prepare a new draft analysis that considers these special circumstances.

A. The United States Has Acknowledged its Trust Responsibilities to the Tribes in *Arizona v. California*.

2: Reclamation was in error. See Section 3.14 for additional analysis.

3: See Section 3.14 for additional analysis. After review of this additional material, the Department has made the decision that a new draft was not necessary.

The water rights of the Five Lower Basin Tribes are established pursuant to the Decree in *Arizona v. California*, 376 U.S. 340 (1964). From the outset of that case, the United States steadfastly asserted that it was appearing as trustee for the Tribes. *E.g.*, *Petition of Intervention on Behalf of the United States of America* ¶ 27 (Dec. 1953) ("US intervenes 'as trustee for the Indians and Indian Tribes'"); *Arizona v. California*, 373 U.S. 546, 595 (1963). Indeed, as late as 1978, the United States contended that tribal intervention was not necessary because the federal government was appearing on behalf of the Tribes. *See Memorandum in Opposition to the Three Tribes Motion* (Feb. 1978). Ultimately, the United States acquiesced in tribal intervention, although continuing its role in the litigation as trustee for the Five Lower Basin Tribes. *Motion of the United States for Modification of Decree and Supporting Memorandum* at 5 (Dec. 1978) ("The present motion is submitted by the United States as trustee for, and guardian of, the Tribes of the Fort Mojave, Chemehuevi, Colorado River, Fort Yuma and Cocopah Indian Reservations on the lower Colorado River"). Nothing in any of the Court's opinions or decrees suggests, or even hints, that the Five Lower Basin Tribes' water rights are anything but held in trust by the United States.

Moreover, nothing in Interior or Reclamation policy suggests that tribal water rights established under federal law are not trust assets which must be fully protected by federal agencies. In a wide variety of circumstances, Interior has treated such water rights as trust assets and conducted the sort of rigorous investigation -- sorely lacking here -- that is needed to understand the potential effect of the activity in question and to determine whether the activity should proceed in light of the impact on the Tribes or whether means were available to offset adverse effects. *See, e.g.*, Bureau of Reclamation *Animas-La Plata Project, Colorado-New Mexico, Final Supplemental Environmental Impact Statement* (July 14, 2000).

B. The Partnership Tribes' Water Rights Are, and Must Be Treated As, Unique Under the "Law of the River."

The DEIS also ignores the unique nature of Tribal water rights under the "Law of the River," a term used to denote the various compacts, legislation, court decrees and regulations that determine how the Colorado River is controlled and operated. The foundation for the "Law of the River" is the Colorado River Compact, which expressly provides: "Nothing in this Compact shall be construed as affecting the obligations of the United States of America to Indian tribes." Colorado River Compact of 1922, Art. VII. That provision leaves the Secretary of the Interior's ("Secretary") trust responsibilities undiminished by the enactment of the Compact and controls the relationship between *all* the Partnership Tribes, including the Five Lower Basin Tribes, and the United States concerning the operation of the Colorado River. The authoritative role of Article VII of the Compact in the "Law of the River," and its preservation of the Secretary's trust responsibilities, is expressly confirmed by the Boulder Canyon Project Act, 45 Stat. 1057, which provides: "The rights of the United States in or to waters of the Colorado River and its tributaries howsoever claimed or acquired, as well as those claiming under the United States, shall be subject to and controlled by said Colorado River Compact."

45 Stat. 1064 § 13(b), 43 U.S.C. § 617*l*(b)(1928). Thus, the Secretary's duties to the Partnership Tribes are not affected – let alone curtailed – by the "Law of the River."

Nothing in *Arizona v. California* alters that conclusion. To be sure, the Decree in that case is frequently cited for the proposition that the Secretary is authorized to release water not used in one state in any one year for use in another. *See* DEIS at 1-12. In fact, the Decree is far less permissive; holding only that the Secretary of the Interior is *not prohibited* under the Decree from "releasing such apportioned but unused water during such year for consumptive use in the other States." *Arizona v. California*, 376 U.S. at 343. This lack of prohibition does not provide definitive authority for the Secretary, whose trust duties to the Tribes remain unaffected, to release from storage "water controlled by the United States," which the Secretary holds in trust for the Tribes, if the sole purpose is to facilitate water use by other water users along the River.

The DEIS never addresses the unique status of the tribal rights under the "Law of the River" or the fact that the Secretary, and Reclamation acting on the Secretary's behalf, have special obligations with regard to the water rights of the Five Lower Basin Tribes. Before embarking on his ambitious agenda of establishing interim criteria, the Secretary must examine the effect of such criteria on the rights all Partnership Tribes, including the Five Lower Basin Tribes. To construct the proper framework in the DEIS for that analysis, Interior must first recognize its trust responsibilities to all of the Partnership Tribes and the unique position which Tribal rights have under the "Law of the River."

C. Reclamation, Acting on Behalf of the Secretary, Is Subject to Exacting Standards if its Actions Affect the Water Rights of the Partnership Tribes.

The DEIS fails to acknowledge the United States' obligations to the Five Lower Basin Tribes and fails to properly analyze the potential effects on all ten Partnership Tribes from the adoption of interim surplus criteria. In the absence of a proper accounting of the effect of the proposed action on the Tribal rights, it is difficult to determine the appropriate steps that Reclamation, on behalf of the Secretary, should take to offset any adverse impact on the Tribes. It is clear, however, that Interior is subject to demanding standards that require it to take all possible actions to protect and promote the Tribal interests at stake.

Perhaps the most succinct statement of Interior's obligations is set forth in Secretarial Order 3215 - Departmental Responsibilities for Indian Trust Resources (Apr. 28, 2000). It is clear from this Order that Interior, including Reclamation, has an obligation under the present circumstances both to account for the potential effect on Tribal water rights and to ensure that its action "promotes," as well as "protect[s] and maintain[s]," *see* DEIS at 3.14-1, the interests of the Tribes and their water rights.

Case law also demonstrates that far more is required than the minimal discussion found in the DEIS. In *Pyramid Lake Paiute Tribe of Indians v. Morton*, 354 F.Supp. 252, 256-57 (D.C. 1972), the Pyramid Lake Tribe challenged regulations promulgated by

Reclamation to regulate the operation of the Newlands Project, a federal Reclamation project in Nevada. The Tribe charged that Reclamation had not adequately considered the tribal interests in crafting the regulations that controlled the water supply available to the project. The district court agreed:

> In order to fulfill his fiduciary duty, the Secretary must insure, to the extent of his power, that all water not obligated by court decree or contract with the District goes to Pyramid Lake. The United States, acting through the Secretary of the Interior, "has charged itself with moral obligations of the highest responsibility and trust. Its conduct as disclosed in the acts of those who represent it in dealings with the Indians, should therefore be judged by the most exacting fiduciary standards.
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> The Secretary was obliged to formulate a closely developed regulation that would preserve water for the Tribe. He was further obliged to assert his statutory and contractual authority to the fullest extent possible to accomplish this result. Difficult as this process would be, and troublesome as the repercussions of his actions might be, the Secretary was required to resolve the conflicting claims in a precise manner that would indicate the weight given to each interest before him. Possible difficulties ahead could not simply be blunted by a "judgment call" calculated to place temporarily conflicting claims to precious water. The Secretary's action is therefore doubly defective and irrational because it fails to demonstrate an adequate recognition of his fiduciary duty to the Tribe. This also is an abuse of discretion and not in accordance with law.

The DEIS does not comport with this exacting standard; both because it fails to fully acknowledge Interior's trust responsibility and because it never attempts to analyze the effect on the Five Lower Basin Tribes of the various criteria which it considers.

The fact that the Secretary effectively serves as water master on the River does not alter the conclusion that he must act consistent with his trust responsibility to the Tribes. In *Jicarilla Apache Tribe v. Supron Energy Corp.*, 728 F. 2d 1555, 1567 (10th Cir. 1984) (Seymour, J. concurring in part, dissenting in part), *as modified*, 782 F.2d 855 (10th Cir.)(en banc)(per curiam)(adopting dissenting opinion of Seymour, J.), *cert. denied sub nom., Southern Union Co. v. Jicarilla Apache Tribe*, 479 U.S. 970 (1986), Judge Seymour clearly spelled out the steps that the Secretary must take when his role as an administrator requires him to deal with assets which he holds in trust for Tribes:

> When the Secretary is acting in his fiduciary role rather than solely as a regulator and is faced with a decision for which there is more than one "reasonable" choice as that term is used in administrative law, he must choose the alternative that is in the best interests of the Indian tribe. In

short, he cannot escape his role as trustee by donning the mantle of administrator . . . . (citation omitted.)

728 F.2d at 1567. *Accord Burlington Resources Oil & Gas Co. v. United States Department of Interior*, 21 F. Supp. 1, 4-5 (D.C.D.C. 1998) (Secretary's decision must satisfy the "arbitrary and capricious" standard *and* provide optimum advantage for the trust beneficiary). Reclamation's own ITA policy acknowledges Interior's trust responsibility as well as the undeniable fact that the ITAs entitled to protection by Reclamation include Indian federal reserved water rights. *See* Bureau of Reclamation, *Indian Trust Asset Policy* (Aug. 31, 1994) ("Reclamation ITA Policy"), in Attachment A, United States Department of the Interior, *Protection of Indian Trust Resources* (notebook on file with the Department of the Interior) ("Protection of Indian Trust Resources").

II. RECLAMATION FAILS TO FULLY ANALYZE THE IMPACTS TO THE INDIAN TRUST ASSETS OF THE PARTNERSHIP TRIBES IN VIOLATION OF RECLAMATION'S OWN INDIAN TRUST ASSET POLICY

4 cont'd below

A. In Keeping with its Trust Duty to the Partnership Tribes, Reclamation Must Explicitly Address the Proposed Action's Impacts on the Ten Tribes' Water Rights and Must Avoid or Mitigate Those Impacts.

In accordance with the exacting fiduciary standards discussed above, Interior and Reclamation have adopted policies and procedures to ensure that their actions comply with the trust responsibility. Interior's policy, to which Reclamation is subject, states that it will "recognize and fulfill its legal obligations to identify, protect, and conserve the trust resources of federally recognized Indian tribes and tribal members." 512 DM 2.2 (Dec. 1995), in "Protection of Indian Trust Resources." Interior's procedures require that "[a]ny effect [on Indian trust resources] *must be explicitly addressed* in the planning/decision documents, including, but not limited to . . . Environmental Impact Statements . . . ." 512 DM 2.4(A) (emphasis added). Such documents "*shall* . . . [e]xplain how the decision will be consistent with the Department's trust responsibility." *Id.* (emphasis added).

In describing this duty, Reclamation states that the trust responsibility "requires that the United States, as trustee, [deal] with the trust assets in the same manner [as] a prudent person would deal with his own assets." Bureau of Reclamation, *Indian Trust Asset Policy and NEPA Implementation Procedures: Questions and Answers About the Policy and Procedures* ("ITA Q&A"), Section II-1 at 4, in "Protection of Indian Trust Resources."[1] In fulfillment of the trust responsibility, Reclamation commits in its own ITA policy to:

[1] Reclamation's policy statements regarding the proper discharge of the trust responsibility should be interpreted in light of the "guiding principles" in Secretarial Order No. 3215, *supra*. The Secretarial Order cites as a "source of guidance" *Seminole Nation v. United States*, 316 U.S. 286, 296-97 (1942), wherein the United States Supreme Court stated that the government, in its dealings with Indians, is

4: Comment noted.

> carry out its activities in a manner which protects trust assets and avoids adverse impacts when possible. When Reclamation cannot avoid adverse impacts, it will provide appropriate mitigation or compensation.

Reclamation ITA Policy in "Protection of Indian Trust Resources."

Reclamation's procedures implementing its ITA policy require that the assessment of impacts on ITAs cover "[a]ctions that could impact the value, use or enjoyment of the ITA." ITA Q&A, Section IV-4 at 9. "Such actions could include interference with the exercise of a reserved water right." *Id.* Reclamation requires all impacts, whether positive or negative, to be analyzed and discussed. *See id.* Reclamation's analysis, according to its own policies and procedures, encompasses the following steps:

> The first strategy should be to avoid causing significant adverse impacts. When this is not possible, an attempt should be made to minimize such impacts. If adverse impacts do occur, the next step is to identify mitigation or compensation measures to offset adverse impacts so that there is no net loss to the Indian beneficial owners of the asset.

ITA Q&A, Section V-1 at 13.

According to its procedures, when implementing its ITA policy, Reclamation should perform interdisciplinary studies in order "to identify potential impacts and reasonable measures that could prevent or mitigate the adverse impacts." ITA Q&A, Section IV-7 at 10.

Reclamation's procedures for implementing its ITA policy also seek to uphold the United States' "government-to-government" policy by "[trying] to insure that tribes are not treated as 'just another interest group.'" ITA Q&A, Section II-6 at 7. Reclamation's ITA policy recognizes that working "government-to-government" with tribes "requires that federal agencies design solutions and tailor federal programs, in appropriate circumstances, to address specific or unique needs of Indian tribes." *Id.*

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Because the Partnership Tribes' water rights are Indian trust assets, *see* discussion *supra*, Reclamation must follow Interior's and its own ITA policies and procedures in addressing the Partnership Tribes' water rights in the DEIS. In accordance with these policies and procedures, the DEIS must explain and assure that the decision will be consistent with the trust responsibility by:

a) Explicitly addressing how the proposed action, the development of specific interim surplus criteria, will impact the Partnership Tribes' water rights.

charged with "moral obligations of the highest responsibility and trust" and should be "judged by the most exacting fiduciary standard." *Id.*

b) Explaining how the proposed action will be consistent with Reclamation's responsibility to protect and promote these water rights.

c) Fully analyzing whether the proposed action *could* interfere with the Partnership Tribes' exercise of these water rights now or in the future.

d) Analyzing the impacts and reasonable mitigation measures based upon an interdisciplinary approach.

e) Designing mitigation solutions that recognize and promote the Tribes' unique relationship with the federal government.

f) Including, to the extent significant adverse impacts from the proposed action cannot be avoided, sufficient mitigation measures to ensure that the Partnership Tribes' water rights and the ability to exercise those water rights now or in the future are protected.

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As is discussed in more detail below, the DEIS is woefully lacking in meeting any of these obligations in its ITA analysis.

B. The DEIS Fails to Analyze the Significance of the Impacts on the Partnership Tribes' Water Rights and Fails to Discuss How the Impacts May Be Avoided or Mitigated.

Despite inconsistent statements to the contrary in the DEIS's summary, *see* DEIS at S-14,[1] and despite the DEIS's erroneous statement that the present perfected rights of the Five Lower Basin Tribes are not ITAs, the DEIS clearly states that the proposed action could have a significant impact on the Indian trust assets of the Partnership Tribes. The DEIS recognizes that a substantial portion of the surplus water made available under the interim criteria is "primarily a direct result of unused existing entitlements, including those of the [Ten] tribes," whom, the document recognizes "have a significant amount of undeveloped water rights." DEIS at 3.14-2. Having recognized that fact, the DEIS concludes that the development of an interim surplus criteria has the "practical effect of diminishing the tribes' ability to utilize their entitlements." *Id.* There is, however, no analysis of this clearly stated impact and no discussion of how such an impact might be mitigated.

5 cont'd below

Notwithstanding the perfunctory presentation, Interior and Reclamation have recognized that establishing interim surplus criteria will create a disincentive for the

[1] In fact, the conclusory statement in the DEIS summary, that water availability for the Partnership Tribes would be unaffected because the Partnership Tribes' water rights "have priorities sufficiently early in time," is inaccurate. The erroneous statement ignores the fact that many of the Partnership's Upper Basin Tribes have *subordinated* senior priority dates as part of congressional settlements or project authorizations.

5: The Department acknowledges this concern and recognizes that a number of Tribes have been unable to use their entitlement to date. The Department is committed to making progress to help Tribes make better use of their water rights. In the Upper Colorado Region, Reclamation and the Department have undertaken numerous efforts to pursue opportunities for the Ten Tribes to utilize their water rights. Implementation of water right settlements for both the Northern Ute Tribe and the Jicarilla Apache Tribe continues to be a focus of the Department, along with seeking final implementation of the Colorado Ute settlement. In addition, the Department is working with the Navajo Nation on reapportionment of the Navajo Reservoir, which will assist efforts to move the Navajo Indian Irrigation Project towards completion. Efforts also continue on a settlement of the Little Colorado River.

In the Lower Colorado Region, Reclamation and the Department have likewise undertaken numerous efforts to pursue opportunities for various Tribes to utilize their water rights. The Department has worked for years to address the needs of Lower Basin Tribes served by the Central Arizona Project in a comprehensive Arizona Water Rights Settlement. For example, recently this effort led to introduction of a bill in Congress that would address the claims of the Gila River Indian Community, resolving the largest Indian water rights claim in the western United States.

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development of the Tribes' quantified but currently "undeveloped water rights." *Id.* Stated another way, the three Lower Basin States, and the water users within those States who benefit from the interim surplus criteria, now have (yet another) incentive to oppose and to seek to prohibit any further development of the Partnership Tribes' quantified federal reserved rights.[1] Although the DEIS thus correctly acknowledges that the proposed action could impact the value, use, or enjoyment of the Partnership Tribes' Indian trust assets, the DEIS fails to provide the thorough discussion and analysis of this impact that is necessary for decisionmakers and the public to understand both the extent of the impact and the need for mitigation. As discussed above, Reclamation is required to "explicitly address" the impacts on ITAs and to avoid or mitigate those impacts in a manner that recognizes, respects, and implements the trust relationship between the federal government and the Tribes. The DEIS explicitly addresses the extent of impacts to those Tribes with entitlements to Central Arizona Project water, but it contains no analysis of the magnitude of the disincentive that each of the various alternative proposed interim surplus criteria could have for development of the Partnership Tribes' water rights. Reclamation has not employed an "interdisciplinary" or any other analysis to properly assess the impacts of the alternatives on the Partnership Tribes. This is yet another reason why a revised draft environmental impact statement should be issued.

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By virtue of the fact that their rights are quantified, the Ten Tribes' rights can, and should be, explicitly accounted for, and assessed, *see also* n.3 *supra*, in a manner that reflects the actual value of using their water in various shortage, normal, or surplus determinations, as those determinations would be made according to the various alternatives in the DEIS. *See* discussion in the Technical Comments *infra*. Such an assessment is necessary in order to, at the very least, analyze the one impact Reclamation actually recognized in the DEIS at 3.14-1. Furthermore, having an analysis that is tailored to the specific and unique needs of the Partnership Tribes is in keeping with Reclamation's own policies to foster government-to-government relationships and to protect Indian trust assets. Because the DEIS contains literally no analysis of the one impact recognized in the DEIS, the disincentive to future water development by the Tribes, the Partnership has provided such an assessment. *See* discussion in the Technical Comments *infra*. As the Partnership's analysis reveals, the impact varies depending on the alternative criteria employed.

7 cont'd below

In addition to ignoring a complete analysis of the impacts, the DEIS fails to discuss appropriate mitigation for the Tribes. Such a discussion cannot occur, however, without performing the proper accounting of the effect that the proposed action will have

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[1] It is important to note that this disincentive argument holds true for unquantified and undeveloped federal reserved water rights as well. The Partnership's request that a revised DEIS explicitly account for and analyze the amount of the disincentive on the Tribes' quantified rights does not diminish the need for Reclamation to also analyze, and mitigate impacts to, Indian federal reserved water rights that are not yet quantified. The analysis may be different, however. It is also important to note that, even if impacts to all Tribes and, indeed, the Six States, are lessened by establishing criteria that allows California to curtail its over dependence on the Colorado River, implementation of interim criteria still can, and does, have impacts.

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6: The Department does not believe this proposed action would preclude the Tribes or any entitlement holder from using their Colorado River entitlement. The interim surplus criteria will not alter the quantity or priority of Tribal entitlements. In fact, as noted by the description of the Tribes' water rights in Section 3.14, the Tribes have the highest priority water rights on the Colorado River. Surplus determinations have been made by the Secretary since 1996, and surplus water supplies have been utilized by valid Colorado River contractors under the Secretary's annual surplus determinations since that date. Adoption of ISC will not make any additional surplus water available as compared with current conditions, but rather will provide more objective criteria for surplus determinations and will quantify the amounts of surplus water to be made available on an annual basis. Reclamation does not believe that identifying the limited amounts of surplus water will provide any additional disincentives for Tribal water development. Interim surplus criteria is also intended to complement efforts by California to reduce its over reliance on surplus water. The selection of any of the alternatives of this proposed action does not preclude any entitlement holder from using its water rights.

7: The Department does not believe mitigation is warranted based upon the Department's conclusion that the proposed action will not adversely affect the water rights of the Tribes (or any entitlement holder).

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on the Partnership Tribes' quantified rights. Once the accounting is done and the impacts are analyzed, but before a preferred alternative is chosen, Reclamation has a duty to consult with the Tribes regarding mitigation determinations. *See* ITA Q&A, Section V-1 at 13 ("Mitigation determinations should be done as they are now, by consulting with affected Indian entities . . ."); *see also id.*, Section IV-11 at 11 ("[T]he government-to-government policy requires that tribal governments be consulted to the greatest extent practicable concerning actions with potential affects on . . . tribal ITAs . . .").

III. A REVISED DEIS SPECIFICALLY ADDRESSING THE PARTNERSHIP WATER USE MUST BE CIRCULATED IN ORDER TO COMPLY WITH NEPA

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A. Under NEPA, a Draft Environmental Impact Statement Must Fulfill and Satisfy to the Greatest Extent Possible the Requirements Established for the Final Environmental Impact Statement.

In addition to the deficient ITA analyses, the DEIS's discussion of the environmental impact of the proposed action is insufficient according to the National Environmental Policy Act, 42 U.S.C. §§ 4321-4370(d) (West Supp. 2000) ("NEPA") and its implementing regulations. The only cure for the deficiencies discussed herein, as provided by NEPA, is to recirculate a revised DEIS as it pertains to analysis of the Partnership Tribes' water rights and water use.

NEPA requires impact statements to include "a detailed statement by the responsible official on . . . the environmental impact of the proposed action." 42 U.S.C. § 4332 (C). *See also* 40 C.F.R. §§ 1508.8 and 1508.27 (1999). The fundamental purpose of this requirement is to "insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken." 40 C.F.R. § 1500.1 (1999). The Council on Environmental Quality's implementing regulations for NEPA apply to Reclamation's actions. *See id.* at § 1500.3. Those regulations provide that:

> [impact statements] shall provide full and fair discussion of significant environmental impacts and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment . . . . *Statements . . . shall be supported by evidence that the agency has made the necessary environmental analyses.* An environmental impact statement is more than a disclosure document. It shall be used by Federal officials in conjunction with other relevant material to plan actions and make decisions.

40 C.F.R. § 1502.1 (1999)(emphasis added).

The Second Circuit has elaborated on these regulatory requirements and provided a concise summation of NEPA case law as it pertains to an impact statement's fundamental purpose:

8: Reclamation disagrees with the commentor's opinion that the ITA analysis is deficient and the environmental impact of the proposed action is insufficient. To meet the requirements of NEPA, it is common practice to update DEIS information in the FEIS as was the case on Tribal water rights and uses. Reclamation has used the best information available in the DEIS and has updated the ITA section appropriately. The determination of Tribal water rights and uses are legal matters beyond the scope of the proposed action. The NEPA process is not the vehicle to determine water rights of any party. Reclamation did not exclude identification or analysis of Tribal water rights or uses in the DEIS. The DEIS and FEIS identifies and appropriately analyzes impacts to Tribal water rights based on information available to Reclamation, thus Reclamation believes it is not required to recirculate a revised DEIS.

> The primary function of an [EIS] under NEPA is to insure a fully informed and well-considered decision . . . . In order to fulfill its role, the EIS must set forth sufficient information for the general public to make an informed evaluation, and for the decisionmaker to consider fully the environmental factors involved and to make a reasoned decision after balancing the risks of harm to the environment against the benefits to be derived from the proposed action. In so doing, the EIS insures the integrity of the process of decision by giving assurance that stubborn problems or serious criticisms have not been swept under the rug.

Sierra Club v. United States Army Corps of Engineers, 701 F.2d 1011, 1029 (2nd Cir. 1983) (internal citations and quotation marks omitted).

Moreover, NEPA requires that an agency prepare a draft environmental impact statement with the same general thoroughness as it will its final impact statement:

> Draft environmental impact statements shall be prepared in accordance with the scope decided upon in the scoping process . . . .The draft statement must fulfill and satisfy to the fullest extent possible the requirements established for final statements in section [4332](2)(C) of the Act. If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion. The agency shall make every effort to disclose and discuss at appropriate points in the draft statement all major points of view on the environmental impacts of the alternatives including the proposed action.

40 C.F.R. § 1502.9(a)(1999). As discussed below, Reclamation must prepare and circulate a revised DEIS because the current DEIS is "so inadequate as to preclude meaningful analysis." *see id.*, Reclamation must prepare and circulate a revised DEIS.

B. The DEIS'S Analysis of Alternatives Is Incomplete Because it Does Not Contain the Water Use Projections for the Partnership Tribes' Water Rights.

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In the DEIS model runs, Tribal water use is buried within the demand nodes used by the Colorado River Simulation System (CRSS). Diversions, in many cases, serve both Indian and non-Indian water users, making it difficult to determine the portion, or assumed portion, associated with each. Furthermore, the Tribes have not participated in the determination of their modeled demands or in the assumed water development schedules for each state. Thus, from the standpoint of the Partnership, the modeling of Tribal water in DEIS model runs is ambiguous. Unambiguous modeling of Partnership

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9: Reclamation provided the Partnership with a grant for participation in this process. CRSS has been modified based on the data provided by the Partnership and subsequent discussions with the Partnership consultants clarifying that data.

9 cont'd

Tribes' water within CRSS requires representation of the Tribes' water at each node where the potential for present or future Tribal water demands exists. From this basis the Tribes can identify and fully participate in determining the schedule for their modeled demands. Accordingly, the Partnership submitted to Reclamation a nodal delineation of Tribal water rights and planned development schedules. *See* DEIS at Cover Sheet for Appendix O.

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Although Reclamation had the requisite data from the Partnership, Reclamation omitted a complete analysis in the DEIS of the projected water use of the Partnership Tribes' quantified water rights. Although concern about impacts on the future development of these water rights was clearly raised during the scoping process,[4] the DEIS does not provide a substantive and meaningful discussion of the salient socioeconomic and environmental impacts that the alternatives could have on water use by the Tribes. If alternatives diminish the Partnership Tribes' ability to develop their water rights, those socioeconomic impacts must be described. Moreover, the DEIS fails to consider how the Ten Tribes' water use could affect the quantities of surplus water available under the various alternatives. Proper accounting of the Ten Tribes' ITAs begins with proper inputs into the model. This lack of any substantive discussion about data Reclamation had in its possession, but did not incorporate into the model, raises serious questions as to the accuracy of Reclamation's conclusions regarding environmental impacts of the proposed action.

10: The Department does not believe the alternatives of this proposed action preclude the Tribes from using their Colorado River entitltement.

11

Instead of considering the impacts of the Partnership Tribes' water use on available surplus in the DEIS, Reclamation merely promised that it will update its Colorado River Surplus Simulation ("CRSS") model "to include discrete representation of the Ten Tribes' updated use schedules and their full quantified entitlements for the Final EIS . . . ." DEIS at 3.14-2. Reclamation conceded that it had "a draft listing of the Colorado River system reaches and demand points which was provided to Reclamation by the Ten Tribes Partnership" before the DEIS was issued, but that "[t]his data was not incorporated into the model for this DEIS." DEIS at Cover Sheet for Attachment O. There is no explanation in the DEIS why the data were not considered prior to releasing the DEIS, or why Reclamation ignored pertinent information relevant to the scope of the DEIS. If Reclamation fulfills its promise to incorporate the Tribes' water use projections in the CRSS prior to issuing the FEIS, *id.*, those figures will significantly affect the amount of water now projected in the DEIS as available surplus and will require that Reclamation issue a revised draft statement for additional public comment.

11: Reclamation has incorporated the Partnerships' data into the model runs.

12 cont'd below

In addition to precluding meaningful analysis of the proposed action, the failure to incorporate the Partnership's water use projections in the DEIS's model runs contravenes a fundamental purpose of NEPA, to "insure that environmental information is available

12: Comment noted.

[4] *See* letter from Joe Muniz, Chairman, Ten Tribes Partnership, to Jayne Harkins, Chairperson, Colorado River Management Work Group, Bureau of Reclamation (June 8, 1999). *See also* Letter from Stanley M. Pollack, Water Rights Counsel, Navajo Department of Justice, to Jayne Harkins, River Operations Manager, Bureau of Reclamation (June 29, 1999).

12 cont'd

to *public officials and citizens* before decisions are made and before actions are taken." 40 C.F.R. § 1500.1 (1999) (emphasis added). NEPA is intended to maximize meaningful public participation in decisions that affect the quality of the human environment. *See id.* at §§ 1500.2(d) and 1506.6 (1999). This policy works in harmony with having as complete a DEIS as possible. *See id.* at § 1502.9(a). If the DEIS is complete, public feedback can be meaningful. In preparing its final environmental impact statement on interim surplus criteria, Reclamation must "assess and consider [public] comments . . . and shall respond . . . stating its response in the final statement." 40 C.F.R. § 1503.4(a) (1999). Reclamation has no corresponding obligation to respond to public comments after the FEIS is issued. Consequently, Reclamation's decision to omit incorporation of data in the DEIS regarding the Partnership Tribes' water use undermines a manifest policy that proposing agencies should "[e]ncourage and facilitate public involvement . . ." to the fullest extent possible. *Id.* at § 1500.2. This error can only be corrected by recirculating a revised DEIS which incorporates modeling runs and a discussion of Partnership Tribes' water use as it relates to the proposed interim surplus criteria.

TECHNICAL COMMENTS

I. SURPLUS ACCOUNTING

13

The Ten Tribes Partnership has consistently asserted that the Colorado River Interim Surplus Criteria EIS should include a full and explicit accounting of the water making up the surplus to the Lower Basin.[5] The Partnership contends that the surplus criteria alternatives cannot be properly evaluated without accounting for the sources of the surplus water.

The sources of surplus water to the Lower Basin, in order of declining magnitude during the interim period, are: storage drawdown in Lakes Mead and Powell; undeveloped Indian and non-Indian water in the Upper Basin; reduced spills (excess to Mexico); and reduced reservoir evaporation. The Partnership requests that this accounting be included in a revised DEIS and the final EIS.

14

[5] The Partnership submitted text to Reclamation describing the water rights of each Partnership Tribe which was incorporated by Reclamation in sections 3.14.2.1 through 3.14.2.10 of the DEIS. The Partnership recommends the following revisions to the text at section 3.14.2.6 discussing the Fort Mojave Indian Reservation. Revise the second paragraph as follows:

> The Fort Mojave Tribe claim to additional land and water rights in California was recently settled and confirmed by the United States Supreme Court in *Arizona v. California,* U.S. , 2000 WL 775538 at 17-18 (2000). That settlement provides an additional reserved water right in the amount of 3,022 acre-feet

Delete the first two sentences of the third paragraph because they reference a table that is not part of the DEIS. Add the following sentence at the beginning of the paragraph: "Water use by the Fort Mojave Tribe is estimated using records of electrical consumption at various pump stations and are not measured flows." The third paragraph should then start with "The CRSS model contains . . . ."

13: The Department declines the request to include the sources of water in the FEIS. Once tributary water commingles with Colorado River water it becomes Colorado River system water. This system water is used as such to make appropriate deliveries based on the Decree. The selection of any of the alternatives of this proposed action does not preclude any entitlement holder from using its water.

14: We have revised the second subparagraph under paragraph 3.14.2.6 in the FEIS to adopt these suggestions from the Ten Tribes Partnership.

A. Storage Drawdown

15 During the interim period the storage drawdown in Lakes Mead and Powell is the largest source of surplus water to the Lower Basin. The accelerated drawdown of stored water under the more liberal surplus criteria (Six States, Seven States, California, and Shortage Protection) effectively trades future shortage protection for interim surplus. However, over the course of 60 years the mean annual change in storage (initial storage less ending storage divided by the number of years) is close to the same for all alternatives and is no longer a source of surplus water.

B. Undeveloped Upper Basin Water

After the interim period, undeveloped Upper Basin Indian and non-Indian water accounts for the bulk of surplus water to the Lower Basin. During the interim period it is second to storage drawdown as a source for Lower Basin surplus. This source of Lower Basin surplus declines with time as the Upper Basin develops.

16

As explained earlier, the CRSS modeling for the DEIS did not explicitly include nodal representation of Upper Basin Indian water rights and development schedules. The Ten Tribes Partnership submitted to Reclamation a nodal delineation of the Tribal water rights and planned development schedule, which Reclamation states in the DEIS it intends to incorporate in the CRSS modeling for the Final EIS, and which incorporation requires the submission of a revised DEIS for public review and comment. *See* discussion *supra*. *See also* DEIS at Cover Sheet for Appendix O.

Based on the rights and development schedule provided in DEIS Appendix O, the current depletion by Upper Basin Tribes is 357 KAF per year versus a total right and full development depletion of 728 KAF per year. Thus the undeveloped Upper Basin Tribal water right is 371 KAF per year. From the Upper Basin consumptive use schedule assumed for the DEIS modeling, the current total Upper Basin depletion is 3,836 KAF per year against an end of model run depletion of 5,204 KAF per year. Thus the total undeveloped water in the Upper Basin is assumed to be 1,368 KAF per year. The Indian portion of this total undeveloped Upper Basin water is 371/1,368 or 27%. This is the fraction assumed by the Ten Tribes Partnership in developing this response to the DEIS.

17

The consequence of undeveloped Upper Basin water on water made available to the Lower Basin is simulated as the difference between model runs with scheduled development of Upper Basin water and runs with full development for all model years. Inherent in this approach is the assumption that scheduled water development will not be hindered as a result of disincentives associated with the surplus alternatives being analyzed. If scheduled development were curtailed then the analysis should be based on the difference between current use in the Upper Basin and full rights, which would demonstrate even greater reliance on undeveloped water and hence potential adverse impact to Indian trust assets.

15: See response to Comment No. 31-7 for a discussion of the results of interim surplus criteria implementation.

16: For the DEIS, the depletion schedules prepared and submitted by the Upper and Lower Basin states were used to model the basin water demands under normal, surplus and shortage water supply conditions. The states updated these schedules in consultation with the local agencies/tribes and Reclamation used the updated schedules in the modeling of the baseline conditions and surplus alternatives for the FEIS. All agency/tribe demands schedules are believed to have been appropriately modeled for the DEIS. However, for the DEIS, the demands of various agencies/tribes were clustered or aggregated at the respective nodal point on the model. For the FEIS, the demands of the individual agencies/tribes that have water service contracts with Reclamation and have direct diversions from the main stem Colorado River were disaggregated and modeled as individual demands at the respective nodal points on the model. See Attachment H which shows the Lower Basin use schedules and Attachment K which shows Upper Basin use schedules. All Tribes in the Ten Tribe Partnership, in the Lower Basin receive their scheduled depletion, with the exception of the Cocopah Tribe which has some Arizona Priority 4 water.

17: See response to Comment No. 53-16.

18

C. Reduced Spills

Relative to the Flood Control Alternative, each of the other alternatives results in less excess flows to Mexico. This reduction in spills from Lake Mead is the third largest source of surplus water to the Lower Basin.

19

D. Reduced Evaporation

With the accelerated drawdown of Lakes Powell and Mead the mean reservoir surface area is reduced with a consequential reduction in evaporation loss. This is the smallest source of surplus water to the Lower Basin. It is calculated relative to the evaporation occurring under the Flood Control Alternative, which has the largest mean reservoir storage and, accordingly, the largest mean annual evaporation loss.

II. LOWER BASIN TRIBAL ACCOUNTING POOL

The Lower Basin presently exceeds its compact apportionment, even though the Lower Basin Tribes have not fully developed their perfected water rights. This undeveloped portion of the Lower Basin Tribal depletion right is represented in all analyses as its proportionate share of the Lower Basin use, indicating that other users in the Lower Basin are presently consuming these depletion rights. In addition, this undeveloped portion of Lower Basin Partnership water could be tracked by in-reservoir accounting in Lake Mead explained in more detail below.

20 cont'd below

Because the undeveloped Five Lower Basin Tribes' water assets are an implicit component of the Lower Basin consumptive use they should be treated differently than the undeveloped Upper Basin water when analyzing the potential effects of the various surplus criteria.

Since the Lower Colorado River Basin States presently receive more than their 7.5 million acre-feet (MAF) apportionment, even though the Five Lower Basin Tribes have not fully developed their decreed right, the Lower Basin is implicitly using and relying on Tribal water. The consequence of undeveloped Lower Basin Tribal water could be tracked as the difference between model runs with and without full development as for the Upper Basin Tribal water. While tracking the Lower Basin Tribal rights on this annual basis is instructive and important to the Partnership, it is not a meaningful accounting method that reflects the true value of this trust asset. Impacts accounted for in this manner do not clearly reflect the value of the Tribal water thus used by others. For example, in wet periods when excess water is available, there would be no use of this water by others, yet in dry years its use becomes very important in off-setting shortages that would exist otherwise. Another accounting instrument is required that better represents this differential use. Accordingly, Partnership proposes to represent their unused Lower Basin water with in-reservoir accounting in Lake Mead. In addition to better assessing the use of Lower Basin Tribal water, this accounting method allows differential assessment of impacts among the alternatives. Such an accounting method

18: Comment noted.

19: Comment noted.

20: The Department declines the request to adopt a Lower Basin Tribal Accounting Pool.

provides the best tool for Reclamation, on behalf of the Secretary, to meet its trust responsibility to the Partnership.

In-reservoir accounting of the undeveloped Five Lower Basin Tribes' water will not conceptually change the surplus declaration alternatives or the simulated releases from Lake Mead. Rather, it is simply a bookkeeping process that determines the portion of surplus, normal, and shortage water delivered to other non-Partnership Lower Basin users as a result of undeveloped Ten Tribes' water in the Lower Basin. Because the Tribal Accounting Pool ("TAP") does not affect simulated releases from Hoover Dam, TAP accounting can be done as a post-modeling process provided all trigger elevations for Lake Mead surplus and shortage are output. However, the Partnership promotes having TAP explicitly incorporated into the simulation model as this will expedite the analysis and will better assist the Secretary in assessing the importance and significance of undeveloped Tribal waters in the Lower Basin consumptive use allowed by the various surplus criteria.

20 cont'd below

Presently, the undeveloped Lower Basin Partnership water is approximately 185 KAF annually. This amount decreases during the interim period due to development of Tribal Rights as represented in Appendix O of the DEIS, with an average of 155 KAF over the interim period. Thus, each year 155 KAF will be added to TAP. If excess flow is released to Mexico then TAP would be reduced by the lesser of the amount of excess flow and the volume in TAP. If top water banks maintained by others are operating, the reduction due to spill would be shared in proportion to the water in each bank and TAP. Evaporation would be charged to TAP according to its portion of the total Lake Mead surface area (difference between the surface area with and without TAP water).

Figure 1 shows various storage conditions in Lake Mead relative to surplus (+) and shortage (-) trigger elevations.

a) Under the condition shown in Figure 1a excess water would be delivered to Mexico and TAP would be reduced by the amount of excess. If the excess to Mexico exceeds the amount in TAP, TAP contents would be zeroed. The sharing of impact with top water banks discussed above would apply to this condition.

b) The condition shown in Figure 1b would result in a surplus delivery with or without TAP and no water would be withdrawn from TAP.

c) Under the condition shown in Figure 1c a surplus would be declared. Without TAP a normal release (no surplus) would be declared. Because it is the contents of TAP that put the lake level above the surplus trigger elevation and allow a surplus to be declared, an amount equal to the lesser of the surplus and TAP contents would be added to the tally of surplus water resulting from the undeveloped Lower Basin Tribal water and withdrawn from TAP.

d) The condition shown in Figure 1d would result in a normal delivery with or without TAP and no water would be withdrawn from TAP.

e) Under the condition shown in Figure 1e a normal delivery would be declared. Without TAP shortage would occur. Since it is the contents of TAP that put the lake level above the shortage trigger elevation and allow normal delivery rather than shortage, an amount equal to the lesser of TAP and the difference between normal and shortage deliveries would be added to the tally of normal water (shortage relief) resulting from the undeveloped Lower Basin Tribal water and withdrawn from TAP.

20 cont'd at end

f) Under the condition shown in Figure 1f shortage occurs with or without TAP water; however, to the extent that releases are greater with TAP water than without, the difference would be added to the tally of shortage reduction attributed to the undeveloped Lower Basin Tribal water and withdrawn from TAP.

At the end of each model run, the tallies of surplus enabling, normal (shortage relief), and shortage reduction water withdrawn from TAP are averaged across all traces for each year of the simulation.

Combinations of these six conditions may also occur, and TAP accounting rules will likely evolve through application. However, the above provides a conceptual overview of how the Ten Tribes Partnership believes the undeveloped Tribal water in the Lower Colorado River Basin should be represented and tracked in order for the DEIS to contain a sufficient ITA analysis of the impacts on Partnership water rights.

III. ANALYSIS OF SURPLUS ALTERNATIVE USING ACCOUNTING CONCEPTS

The Ten Tribes Partnership applied the accounting procedures described above as part of its evaluation of the surplus criteria alternatives described in the DEIS.

21 cont'd below

The description of the model inputs and configuration details in the DEIS are insufficient to replicate Reclamation's results.[6] Since the proposed accounting procedures require the full detail of the model output, the Partnership made CRSS-ez model runs configured to closely approximate the RiverWare CRSS model results reported in the DEIS.

[6] This appears to be a violation of, among other things, NEPA's mandate that environmental impact statements be "supported by evidence that agencies have made the necessary environmental analyses." 40 C.F.R. § 1502.1.

21: See response to Comment No. 71-16. See also Attachment Q which shows the Ten Tribe depletions and diversions that were used in the FEIS alternatives.

An attempt was made to evaluate the Seven States Alternative, *see* 65 Fed.Reg. 42028 (2000), but due to inconsistencies between trigger elevations, demand schedules, post interim criterion (70R versus 75R), and modeling platforms (CRSS-ez versus RiverWare CRSS), results compatible with the DEIS model runs were not obtainable. However, it is believed that the Seven States Alternative would fall between the Six States and California Alternatives, and the Partnership evaluated it accordingly.

The relative magnitudes of the five sources of Lower Basin surplus (storage drawdown, undeveloped Upper Basin Indian and non-Indian water, reduced spills, and reduced evaporation) for each of the surplus alternatives in the DEIS are shown in stacked bar graphs in Figures 2a (annual averages for interim period, 2000-2015), 2b (annual averages for post interim period, 2016-2060), and 2c (annual averages for the entire model study period, 2000-2060).

21 cont'd below

Figure 2a shows that the storage drawdown in Lakes Powell and Mead is the largest source of surplus water to the Lower Basin for all surplus alternatives during the interim period (2000-2015). With the exception of the No Action Alternative, undeveloped water in the Upper Basin is the next largest source of Lower Basin surplus, followed by reduction in spills (excess to Mexico), and then reduced evaporation loss due to the lowering Lakes Powell and Mead.

For the post-interim period (2016-2060), Figure 2b, the average Lower Basin consumptive use is below 7.5 MAF and there is no surplus resulting from change in storage in Lakes Mead and Powell as these reservoirs were effectively drawn down during the interim period. The No Action Alternative produces the greatest Lower Basin consumptive use during the post-interim period and with less than half the dependency on undeveloped Upper Basin water as the other alternatives.

Figure 2c shows the annual averages over the entire 60-year modeling period. Because the change in storage over the entire modeling period is practically the same for all alternatives it does not figure in to a 60-year average comparison of the alternatives. Figure 2c as well demonstrates that the No Action Alternative has the least reliance on undeveloped Upper Basin water of all the alternatives.

Figures 3a-c provide an analysis, using a top-water accounting method in Lake Mead, of the implicit use of undeveloped Lower Basin Indian water rights by non-Partnership entities. As mentioned earlier, the Lower Basin currently exceeds its 7.5 MAF apportionment despite underdevelopment of Lower Basin Tribal waters rights. Thus the undeveloped Lower Basin Tribal water rights are a basic component of Lower Basin non-Indian use. The Partnership believes that the implicit use of its undeveloped Lower Basin water can best be analyzed through water accounting methods described earlier. For this analysis the Partnership assumed that on average 155 KAF was deposited in the Tribal Accounting Pool (TAP) each year. The 155 KAF is the average undeveloped

Lower Basin depletion right when utilizing the CRSS depletion schedule used in the DEIS during the interim period.

Figure 3a shows a relatively large amount (nearly 80 KAF annually) of TAP water going to realize surplus deliveries (TAP condition shown in Figure 1c) under the California, Six State, and Shortage Protection Alternatives and a modest amount (17 KAF annually under the No Action Alternative during the interim period. Small amounts of TAP water also go to normal (TAP condition shown in Figure 1e) and extreme shortage relief (TAP condition shown in Figure 1f).

21 cont'd

During the post-interim period over 40 KAF annually of TAP water goes to extreme shortage relief and a near equal amount to meet normal deliveries under all surplus alternatives. With exception of the Flood Control Alternative there is little difference in TAP releases among the alternatives during the post-interim period. Note that for the Flood Control Alternative there is never any surplus TAP release (TAP condition shown in Figure 1c) since under this alternative surplus is coincidental with the condition shown in Figure 1a when the TAP is reset.

Figure 3c shows the 60-year average TAP releases. From this figure it is apparent that there is little difference among the liberal criteria (California, Six State, and Shortage Protection Alternatives) with respect to TAP releases and hence to the implicit reliance on undeveloped Lower Basin Tribal waters. The No Action and Flood Control Alternatives have moderately lower 60-year average TAP releases than the three liberal interim criteria.

IV. DISINCENTIVE TO INDIAN WATER DEVELOPMENT

As the DEIS acknowledges but does not analyze, *see* DEIS at 3.14-2, there is a disincentive to Indian water development due to the implicit reliance on undeveloped Tribal water assets. As demonstrated by the accounting above, this implicit reliance varies depending on the surplus criterion. The more liberal the surplus criterion, the greater is the implicit reliance on undeveloped water both in the Upper and Lower Basins, and hence the greater is the disincentive to Indian water development. Since the Lower Basin is over-allocated, the development of Tribal water would reduce the delivery of water to others in the Lower Basin, requiring either a reduction in use or the purchase of water to replace that amount of Tribal water that others have previously used.

22 cont'd below

By assigning per acre-foot dollar values to the Lower Basin non-Indian use of undeveloped Indian waters, we can estimate the economic disincentive to Tribal water development. Using the negotiated cost per acre-foot transferred under the Imperial Irrigation District/San Diego County Water Authority conservation agreement as a current guideline, transferred water is valued at approximately $290/af. Recognizing that the normal and shortage relief releases from TAP would have even greater value, normal

22: The Department does not believe that the proposed action will serve as a disincentive to Indian water development. See response to Comment 53-6.

22 cont'd

TAP releases are valued at $435/af, and shortage relief TAP releases at $580/af. Table 1 gives the results of assigning these values to the implicitly used Upper and Lower Basin undeveloped Tribal waters. The amounts shown represent the 60-year annual average value of the Tribal water that will be used by the Lower Basin non-Indians under the various alternatives. It may be considered a disincentive to the development of Tribal water as those using this water would have to replace it at the approximate values shown, thereby providing this level of disincentive to others to allow for development of the water on Tribal lands. From Table 1 the No Action Alternative results in the lowest economic disincentive to Tribal water development.

Table 1. Potential Economic Disincentive to Tribal Water Development ($million/year).

	California	Six State	Shortage Protection	No Action	Flood Control
Upper Basin	$ 14.24	$ 13.14	$ 14.34	$ 5.50	$ 12.01
Lower Basin	38.24	37.67	38.21	34.26	31.70
Total	$ 52.48	$ 50.81	$ 52.54	$ 39.76	$ 43.71

If the development schedule submitted by the Partnership is utilized in the final EIS as promised in the DEIS, and in a revised DEIS, *see* discussion *supra*, then the water supply available to meet the excess lower basin demand is diminished. When the new model runs are completed for the revised DEIS, the disincentive should be recomputed as the difference in delivery of Lower Basin Tribal water to Lower Basin non-Tribal uses for the two alternatives (full build-out as shown and the schedule shown in the DEIS). While the revised DEIS should recognize the full build out scheduled, it should also acknowledge that the loss of this water to the non-Tribal Lower Basin users has an economic impact and that impact becomes a disincentive for others to allow the Tribes to accomplish their desired build-out.

CONCLUSION

As presently drafted, the DEIS fails to fully and adequately account for the Partnership Tribes' water rights and the impact Reclamation admits the interim surplus criteria will have upon those rights. These failures must be corrected to fulfill the requirements of NEPA and Interior's and Reclamation's own policies regarding ITAs. This additional analysis, together with a complete analysis of the Seven States proposal, will require that Reclamation circulate a revised DEIS that fully accounts for impacts to ITAs and proposes mitigation for those impacts based upon consultation with the Partnership. Without the requisite analysis in a revised DEIS, there is no basis upon which the Partnership – or the Secretary – may support a preferred alternative.

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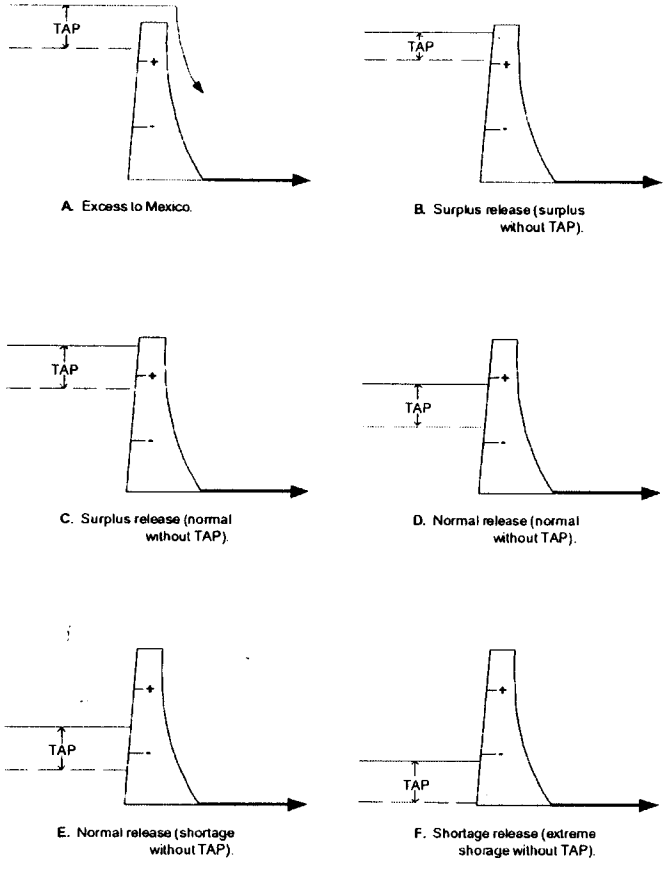

Figure 1. Different combinations of Tribal Accounting Pool (TAP) and contents of Lake Mead relative to surplus (+) and shortage (-) trigger elevations.

TEN TRIBES PARTNERSHIP COMMENTS
COLORADO RIVER INTERIM SURPLUS CRITERIA
DRAFT ENVIRONMENTAL IMPACT STATEMENT

21

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cont'd

Figure 2a
Interim Period (2000 - 2015) Average Lower Basin Consumptive Use

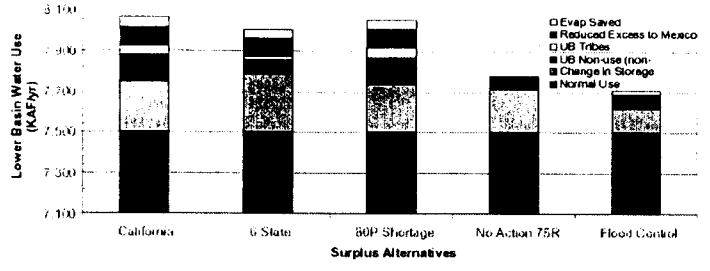


Figure 2b
2016 - 2060 Average Lower Basin Consumptive Use

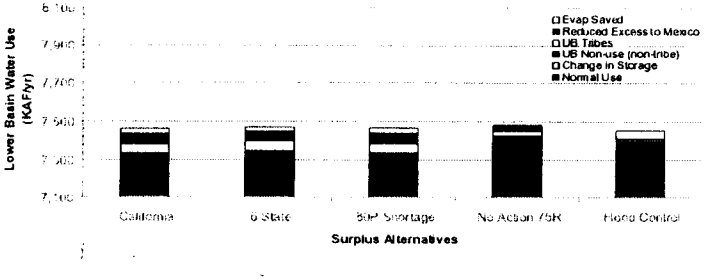
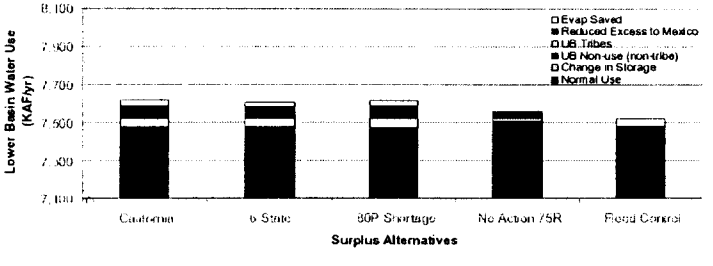


Figure 2c
2000 - 2060 Average Lower Basin Consumptive



TEN TRIBES PARTNERSHIP COMMENTS
COLORADO RIVER INTERIM SURPLUS CRITERIA
DRAFT ENVIRONMENTAL IMPACT STATEMENT

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cont'd

Figure 3a
Interim (2000 - 2015) Period Average Lower Basin TAP Deliveries

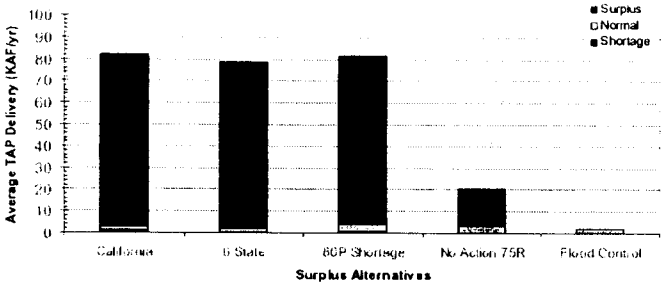


Figure 3b
2016-2060 Average Lower Basin TAP Deliveries

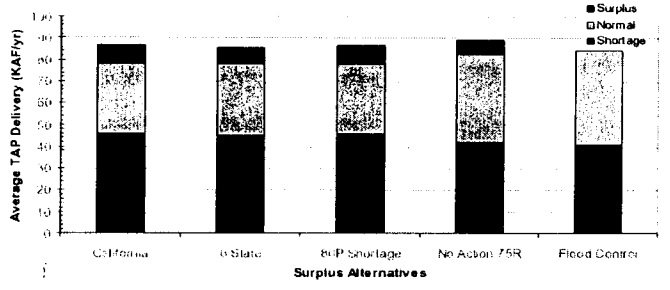
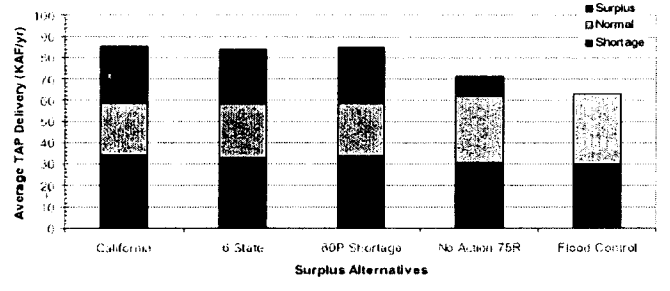


Figure 3c
2000 - 2060 Average Lower Basin TAP Deliveries



TEN TRIBES PARTNERSHIP COMMENTS
COLORADO RIVER INTERIM SURPLUS CRITERIA
DRAFT ENVIRONMENTAL IMPACT STATEMENT

23

INFORMATION SHEET
#71 – Ten Tribes Partnership

The following attachments to the comment letter received from the Nordhaus Law Firm on behalf of the Ten Tribes Partnership (comment letter #71) were not scanned into the database:

(1) Department of the Interior, Departmental Manual release 512 DM 2
Protection of Indian Trust Resources

(2) Bureau of Reclamation, Indian Trust Asset Policy and NEPA Implementing Procedures

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FEDERAL AGENCIES

Letter #	Agency Name	Page #
54	Bureau of Indian Affairs (BIA)	B-221
55	Bureau of Indian Affairs, Navajo Region	B-223
56	Environmental Protection Agency (EPA)	B-225
57	U.S. Fish and Wildlife Service	B-238
58	International Boundary and Water Commission, United States Section (IBWC, U.S. Section)	B-278
59	National Park Service (NPS)	B-281
60	Western Area Power Administration (WAPA)	B-286
61	Western Area Power Administration (WAPA)	B-287
62	Western Area Power Administration (WAPA)	B-289

United States Department of the Interior

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Regional Director
c/o Jayne Harkins, BC00-4600
Lower Colorado Regional Office
Bureau of Reclamation
P.O. Box 61470
Boulder City, NV 89006-1470

Dear Ms. Harkins:

We are writing to provide comments on the draft environmental impact statement (DEIS) for the **Colorado River Interim Surplus Criteria, Colorado River Basin**. It appears that implementation of interim surplus criteria is proposed largely to assist California in the transition to compliance with the basic 4.4 Million Acre Feet apportionment. Accordingly, there should be discussion of potential impacts to California Indian Trust Resources from the DEIS Interim Surplus Criteria Alternatives as associated with the various water management scenarios proposed for the California Colorado River Water Use Plan ("4.4 Plan").

1 We are particularly concerned about proposed groundwater recharge/groundwater storage (banking or conjunctive use of Colorado River Water) for tribes in the Salton Sea watershed under the 4.4 Plan as associated with the DEIS surplus alternatives. The DEIS must adequately describe potential adverse impacts to Federal Trust Assets of Indian Reservation water supplies that may become unusable due to the result of groundwater degradation from imported Colorado River water. In addition, the DEIS should include impact scenarios related to reduction of flows to MWD's Colorado River Aqueduct, including description of impacts to the Soboba Indian Reservation and Morongo Indian Reservation.

2 cont'd below Chapters 2 and 3 (Description of Alternatives and Affected Environment & Environmental Consequences, respectively) lack information with respect to the Federal Trust Assets or Resources affiliated with California tribes of the Salton Sea Watershed and the San Luis Rey River Watershed. The San Luis Rey Indian Water Rights Settlement Act of 1988 includes the Five Bands of Mission Indians involved with the Settlement Act, and the water to be delivered to each of the five Indian Reservations associated with the Act, of which source is likely to be diverted and conveyed from the Colorado River. The following Indian Reservations may receive adverse impacts, if not mitigated depending on final Alternative:

1: Metropolitan Water District of Southern California (MWD) and the Coachella Valley Water District (CVWD) have and are currently storing portions of their basic and surplus apportionments of Colorado River water for intrastate purposes. Intrastate storage (e.g. groundwater storage) activities/facilities are not within Reclamation's jurisdiction, and thus does not permit nor follow the water for environmental compliance purposes once delivered to a water user's point of diversion. The federal government does not have jurisdiction over groundwater aquifers, recharge sites or other off-stream storage sites within the states. Ongoing or new groundwater storage projects would be regulated by state and local regulations and compliance requirements under CEQA, California Water Control Board, and the California Department of Health Services. Some groundwater projects may require federal permits or approvals thus a CEQA/NEPA document may be prepared. Potential impact to trust assets on or adjacent to the Soboba Indian Reservation or the Morongo Indian Reservation from the operation and maintenance of MWD's Colorado River aqueduct are the responsibility of MWD and are not caused by or the result of the federal action addressed in this EIS.

2: The Salton Sea Watershed Tribes do not have Winters Rights to Colorado River Water thus there is no trust asset to impact. Potential impacts to Tribal assets from intrastate groundwater storage are not within the jurisdiction of Reclamation but are regulated by state and local regulations. Water to satisfy the San Luis Rey Water Rights Settlement is dependant on and shall be derived from conserved water from the lining of the All American Canal. Once lined, and conservation accounted for, a portion of the conserved water will be transferred by a point of delivery change to MWD facilities which is being addressed by separate Reclamation compliance documentation. Reclamation understands that the BIA is preparing separate environmental compliance for the use of this settlement water. The development nor transfer of the San Luis Settlement water is affected by the federal action addressed in this EIS.

2 cont'd

Salton Sea Watershed Tribes

- Agua Caliente Band of Cahuilla Indians,
- Augustine band of Mission Indians,
- Cabezon band of Mission Indians,
- Morongo Band of Mission Indians,
- Torres-Martinez Desert Cahuilla Indians,
- Twenty-Nine Palms Band of Mission Indians;

San Luis Rey River Watershed Tribes

- La Jolla Band of Mission Indians,
- Rincon Band of Mission Indians,
- Pauma-Yuima Band of Mission Indians,
- Pala Band of Mission Indians,
- San Pasqual Band of Mission Indians.

3

The Distribution List does not indicate that BIA Southern California Agency (Riverside) was provided a copy of the DEIS. Reclamation did not include the BIA Pacific Regional Office in the initial distribution of the DEIS. This comment constitutes at least the 7th time your office has been notified to provide copies of NEPA-related notices and environmental documents to these offices.

If you have any questions concerning our request or need additional information, please contact William Allan, Regional Environmental Protection Specialist, at (916) 978-6043, or Dale Morris, Regional Natural Resources Officer at 978-6051.

Sincerely,

Regional Director

cc: Regional Environmental Officer, Office of Environmental Policy and Compliance
Superintendent, Southern California Agency
Director, Palm Springs Field Office

3: The Riverside office of BIA was sent a copy of the FEIS, as requested. As a commentor, the Pacific Regional Office was added to the distribution list.

United States Department of the Interior

BUREAU OF INDIAN AFFAIRS
NAVAJO REGION
P. O. Box 1060
Gallup, New Mexico 87305-1060

IN REPLY REFER TO:

RRES/520

SEP 2 1 2000

9/25 Hard 4600

Ms. Jayne Harkins
Bureau of Reclamation
Attention: BCC00-4601
P. O. Box 61470
Boulder City, Nevada 89006-1470

Dear Ms. Harkins:

On behalf of the Navajo Nation, the Bureau of Indian Affairs, Navajo Region, is providing comments on the *Colorado River Interim Surplus Criteria Draft Environmental Impact Statement* (DEIS). We have reviewed the DEIS relating especially to water quantity and water quality and are providing several comments as included below.

1. The DEIS does not consider the unquantified water rights of the Navajo Nation and the other Arizona Mainstream Tribes above Lake Mead. If tribes are allocated Colorado River water, the amount of water available to the Central Arizona Project would be diminished, affecting all the surplus criteria. Because the DEIS does not analyze the impacts attributable to the various surplus criteria on the ability of the Arizona Mainstream Tribes above Lake Mead to obtain Colorado River allocations, the Indian Trust Asset analysis is deficient for these tribes.

1: See response to Comment 53-5.

2. Although the DEIS states that interim surplus criteria would be implemented for 15 years, it assesses effects of the criteria for 50 years. After the 15-year period, all alternatives revert to baseline conditions, which is only one of the alternatives. Why do you assess effects for only one of the alternatives for 50 years? It is more appropriate if the final environmental impact statement (FEIS) provided some analysis of the effect of continuing the various alternatives throughout the 50-year period.

2: See response to Comment 59-2.

The DEIS provides information on the effects of water level changes on recreation facilities (marinas) in Lake Powell and Lake Mead caused by interim surplus criteria by quantifying the costs associated with facility adjustment and capitol acquisition both incrementally and over the 15-year period. Total costs for the entire 15-year period for the 10, 50 and 90 percent hydrologic inflow projections should be quantified in the FEIS.

3: It is recognized that different percentiles could be used for presenting the information in Section 3.9.6, however, Reclamation believes that using median elevations appropriately presents the differences between the alternatives and baseleine conditions. It should be noted that using 90th percentile elevations would show no discernable differences between the alternatives and baseline conditions for Lake Powell or Lake Mead, and use of the 10th percentile elevations would indicate differences similar to those identified using the median elevations (see FEIS Figures 3.9.1 and 3.9.4).

4 While the DEIS suggests that one or more marina sites could become inoperable at certain unspecified water levels, no analysis of these critical levels is provided. The effects of the marina closures could have broad economic consequences to the local and
5 regional economy including that of the Navajo Nation. The effect of the closures of marinas on the ability of the concessionaire to make a profit should be analyzed. The
6 Navajo Nation plans on opening a new facility at Antelope Point on Lake Powell. The ability of the Navajo Nation to open and operate a new facility at Antelope Point on Lake Powell should be analyzed and discussed in the FEIS.

7 3. Water quality is an issue in the DEIS since lake water levels and related lake volume are critical factors in predicting overall water quality. Existing contaminants in the lake will be more diluted if there is more volume in the lake. A general summary of the chemical and pollutant characteristics of the lake is provided in the DEIS, but no specific projections are given on how these concentrations would change with various lake levels. Because the limnology and water quality of Lake Mead are generally known, predictions about changes could be developed and appropriately included in the FEIS.

We appreciate the opportunity to comment on the draft EIS. If you have any questions or comments, please contact Jane Farris, Supervisory Hydrologist, at 505-863-8214.

Sincerely,

ACTING Regional Director, Navajo

cc: Stanley Pollack, Navajo Nation Department of Justice – Window Rock, Arizona
John Leeper, Navajo Nation Water Management Branch – Ft. Defiance, Arizona
Leonard Robbins, Navajo Region – Environmental
Tom Hemstreet, Navajo Region – Tribal Services

4: The discussion of threshold elevations, particularly for Antelope Point Marina, has been expanded. See Section 3.9.2.2.2 for a description of the elevations and Section 3.9.2.3.1 for an analysis of threshold elevations.

5: Potential costs incurred from relocating marina facilities are addressed in Section 3.9.6. Section 3.2 states that the scope of the analysis at Lake Powell is limited to the maximum water surface elevation; regional economic effects are not analyzed. As shown in Figure 3.9-6, the probabilities of Lake Powell elevation falling below 3626 feet msl (the approximate bottom elevation of future boat ramp useability under baseline conditions and the preferred (Basin States) alternative) are typically within 5 percent of each other.

6: Due to the small difference in probabilities (discussed above) between the baseline conditions and preferred alternative, interim surplus criteria would not have a significant effect on the feasibility of a marina at Antelope Point. Reclamation is providing information to the Navajo Nation as requested, regarding results of analyses significant to Antelope Point.

7: The water quality analysis in the EIS appropriately identifies the potential effects of interim surplus criteria. Potential effects are discussed in terms of the general effects of changing reservoir elevations because specific elevations and periods that such elevations would occur are unknown and cannot be predicted.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

September 8, 2000

Robert W. Johnson, Regional Director
c/o Jayne Harkins, BC00-4600
Bureau of Reclamation
Lower Colorado River Region
Boulder Canyon Operations Office
P.O. Box 61470
Boulder City, NV 89006-1470

Dear Mr. Johnson:

The Environmental Protection Agency (EPA) has reviewed the draft environmental impact statement (DEIS) for the **Colorado River Interim Surplus Criteria, Colorado River Basin** (CEQ #239). Our review is pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act.

The Secretary of the US Department of the Interior (Secretary), acting through the US Bureau of Reclamation (Reclamation), is considering the adoption of specific interim criteria under which surplus water conditions may be declared in the Lower Colorado River Basin during an interim period that would extend through 2015. The interim surplus criteria would be subject to five-year reviews concurrent with the Long-Range Operating Criteria (LROC) reviews, and applied each year as part of the Annual Operating Plan (AOP). To date the Secretary has applied factors, including but not limited to the LROC, in annual determinations of the availability of surplus quantities of water for pumping or release from Lake Mead.

For many years, California has been diverting more than its 4.4 maf apportionment from the Colorado River. Prior to 1996, California drew on unused apportionments of other Lower Division states made available by the Secretary. Since 1996, California has also drawn on surplus water made available by Secretarial determination. California is in the process of developing the means to reduce its annual use of Colorado River water to 4.4 maf (4.4 Plan). Adoption of specific interim surplus criteria would afford mainstream users of Colorado River water, particularly users in California who currently utilize surplus flows, a greater degree of predictability with respect to the likely existence, or lack thereof, of surplus conditions on the river in a given year. Thus, interim surplus criteria would accommodate implementation of California's 4.4 Plan and ease California's transition to living within its basic 4.4 maf apportionment.

The DEIS considers four interim surplus criteria alternatives as well as a No Action Alternative (baseline). The four surplus criteria alternatives considered are the Flood Control Alternative, Six States Alternative, California Alternative, and Shortage Protection Alternative. In addition, another alternative was announced in the August 8, 2000 Federal Register (Volume 65, Number 153, pages 48531 - 48538), herein named the Seven States Consensus Alternative. This alternative is judged by Reclamation to be within the range of the four alternatives evaluated in the DEIS. All alternatives propose Lake Mead water surface elevations which would be used for determining the availability of surplus water through 2015. The Flood Control Alternative is the most conservative, even more than baseline, whereby a surplus condition is determined only when flood control releases from Lake Mead are required. Flood control releases occur only when Lake Mead is near a full condition. The Shortage Protection Alternative is the least conservative since surplus conditions are determined when Lake Mead surface water elevations are relatively low, thus providing for more frequent probability of surplus determinations. The Six States, California, and Seven States Consensus alternatives provide for tiered elevation criteria which could be tied to specific uses of the surplus water. A preferred alternative has not been identified.

The analysis presented in the DEIS is based on a computer model of the operation of the Colorado River system under baseline conditions and the four surplus criteria alternatives. Attributes modeled were Lake Mead and Lake Powell surface water elevations and Lower Colorado River flows from 2000 - 2050. In general, model results for all alternatives, including baseline, indicate that Lake Mead surface elevations are likely to decline over the 50-year period of analysis. This decline is attributed to increasing Upper Basin depletions. The proposed surplus criteria alternatives would increase the rate and magnitude of decline in Lake Mead surface elevations. Since Lake Mead carryover storage helps minimize water supply shortages during dry periods, a reduction in its surface elevation and associated volume could also increase the probable frequency and magnitude of shortages to Lower Basin States and Mexico.

EPA commends Reclamation and the seven basin states for their thoughtful efforts to address the growing need for water supply limits in the Lower Colorado River Basin. The reduction of unused apportionment and increased development in both the upper and lower basins clearly demonstrate the potential for significant water scarcity and the need for long-term strategies to address future shortages. In fact, EPA advocates operation of the Colorado River system in a way which will provide flexibility to accommodate future shifts in water policy and assure a long-term, sustainable balance between available water supplies, ecosystem health (e.g., in-stream beneficial uses), and water contract commitments. To help provide this flexibility, we urge Reclamation to utilize all available tools for enhancing water management flexibility, supply reliability, and water quality. These tools could include water transfers and exchanges, conservation, pricing, irrigation efficiencies, operational flexibilities, market-based incentives, water acquisition, conjunctive use, voluntary temporary or permanent land fallowing, and wastewater reclamation and recycling. Within the context of interim surplus criteria, we believe the surplus determination should include more specific requirements, such as conservation measures, for efficient and beneficial use of the surplus water. 1

We strongly support California's reduction of its use of Colorado River water down to its basic 4.4 maf apportionment and acknowledge the need for interim surplus criteria to help ease California's transition. On-the-other hand, interim surplus criteria could incrementally increase 2

1: Comment noted.

2: Comment noted.

3 the decline of Lake Mead surface water elevations and the probability of more frequent and higher magnitude water shortages to other users of Lower Colorado River water. These effects would contribute to incremental adverse impacts to water supply availability, water quality, hydropower generation, and recreational facilities. Adequate water supply for the Central Arizona Project (CAP) could be significantly reduced since it has the lowest priority water rights. Thus, the CAP would be the first to experience shortages and could be reduced to zero allocation prior to shortages for other higher priority users. In addition, the probable release of surplus and excess flows to Mexico and the Colorado River delta would be significantly reduced to near zero, especially during the 15 year interim period. Thus, the proposed criteria could impact a wide range of water users, and because of that, we are concerned that there is little evaluation of indirect impacts and of mitigation measures for direct, indirect, and cumulative effects.

4 While the DEIS provides a good evaluation of potential direct impacts, the scope of the analysis is limited to the 100-year flood plain and reservoir maximum water surface elevations (pg. 3.2-1). Therefore, indirect impacts caused by use and storage of the surplus water are not addressed. This is of concern because proposed use of surplus water includes groundwater banking in basins that are extremely controversial and/or have not been adjudicated and which do not provide protection for existing users (e.g., Desert/Coachella Basin, Cadiz). In addition, a number of Indian Tribes and their Indian trust assets could be adversely affected by proposed storage actions.

5 We are also concerned by the minimal consideration, description or evaluation of mitigation for identified potential impacts. Although the direct impacts may be an incremental increase above baseline, we strongly believe Reclamation has an obligation to describe and consider mitigation for these impacts. Mitigation for potential increased CAP shortages is of concern, especially for Indian Tribes who have unquantified or outstanding water rights (e.g., Hualapai Tribe) or are dependent on CAP water. The FEIS should describe and consider mitigation for potential impacts on all potentially affected Indian Tribes (CAP and non-CAP Tribes), CAP users, and others who may be interested in CAP water. As stated in the DEIS, Reclamation has an obligation to protect Indian trust assets from adverse impacts resulting from its programs (pg. 3.14-1). Furthermore, in the interest of international cooperation, Reclamation should address the mitigation concerns of Mexico per their request (Attachment Q). The FEIS should describe mitigation options and who could fund and implement them. We note that CEQ regulations state that the EIS should include the "means to mitigate adverse environmental effects." (40 CFR 1502.16(h)).

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8 Because of the above significant concerns, we have rated the proposed alternatives and DEIS as EC-2, Environmental Concerns - Insufficient Information (see attached "Summary of the EPA Rating System"). We trust that these comments will assist you in improving the document so that you can move forward with this important action. We urge adoption of a conservative and protective alternative which would maximize long-term operational flexibility, minimize the risk of more frequent and higher magnitude shortages, and ensure aggressive implementation of California's 4.4 Plan.

3: Potential effects on water supply to the lower Basin states, Indian Tribes, and Mexico; water quality; hydropower production; and recreational facilities are discussed in the EIS. Determining the effects on individual water users is beyond the scope of the EIS. Flows to Mexico and potential transboundary effects are discussed in Section 3.16.

4: Because the proposed action is implementation of interim surplus criteria (surplus has and will be delivered under the No Action Alternative/AOP), Reclamation has determined that analysis of potential indirect effects associated with the use of Colorado River water is outside of the area of potential effect as defined in the EIS and is not within the purview of Reclamation's Federal action or the NEPA process being conducted for interim surplus criteria. The indirect effects analysis from the use of any Colorado River apportionment is the responsibility of the California parties and any other state users. It should be noted that California's Colorado River depletion has been 600-800 kaf over their 4.4 apportionment for a number of years. This demand has been met historically through unused apportionment and surplus deliveries.

5: No significant impacts have been identified that require specific mitigation. However, Section 3.17 has been added to the FEIS to discuss environmental commitments that Reclamation would commit upon adoption of interim surplus criteria through the Secretary's Record of Decision.

6: The CAP master contract, through which the Tribes receive water has no guarantee of the availability of water. The Department is of the opinion that the trust asset in this case is the contract the Tribes have for delivery of CAP water. This contract has fully disclosed the potential diminishment of the water. The EIS, in Section 3.14.3 has fully disclosed the impacts of this action to the delivery of CAP water.

7: Potential effects in Mexico will be addressed through continued coordination with Mexico.

8: Comment noted.

We appreciate the opportunity to review this DEIS. Please send three (3) copies of the Final environmental impact statement to this office at the same time it is officially filed with our HQ Office of Federal Activities. If you have any questions, please call Laura Fujii, of my staff, at 415-744-1601, email: fujii.laura@epa.gov.

Sincerely,

Deanna Wieman
Deputy Director
Cross Media Division

File: intercri.wpd
Main ID# 003345
Enclosure: Detailed Comments (8 pages)
Summary of the EPA Rating System

cc: Patricia Port, Office of Environmental Affairs, US Department of Interior
US Fish & Wildlife Service, Arizona and California Ecological Services Field Office
US Geological Survey, Water Resources Division, Yuma, AZ
Bureau of Indian Affairs, Phoenix Area Office
US IBWC, Environmental Management Division
Charles Keene, CA DWR

DEIS COMMENTS, BOR, INTERIM SURPLUS CRITERIA, SEPT. 2000

DETAILED COMMENTS

ENVIRONMENTAL ANALYSIS

Indirect and Cumulative Impacts

9 1. The implementation of interim surplus criteria releases are key to the implementation of California's 4.4 Plan and its transition down to its basic Colorado River apportionment. California would receive surplus water which it can store for future use when surplus is not available and prior to achieving its 4.4 maf demand goal. The FEIS should fully evaluate the potential indirect and cumulative impacts of storage and use of surplus water obtained pursuant to the interim surplus criteria.

10 2. One tool which California could use to store surplus water is provided by Reclamation's Off-Stream Storage Rule. This rule allows storage and transfer of water between lower Basin States. The DEIS does not mention the Off-Stream Storage Rule or how it relates to interim surplus criteria and implementation of California's 4.4 Plan. The FEIS should describe the Off-Stream Storage Rule, its role in water management of the Lower Basin States, and potential indirect and cumulative impacts of storage of surplus water pursuant to this Rule. Of specific concern are potential effects to Tribal Trust lands especially where there is a shared aquifer that is not adjudicated.

11 3. It is our understanding that surplus water allocated to California could be used for groundwater banking within the Cadiz Basin, Hayfield/Chuckwalla Basin, and Desert/Coachella Basin. While these groundwater basins may already be used for water banking, the potential increase in surplus water could significantly alter their management and rate of use. Furthermore, there is a significant concern regarding potential adverse effects to groundwater quality from the injection of lower quality Colorado River water. The FEIS should fully evaluate potential indirect and cumulative impacts of storage of surplus water in these groundwater basins. In addition, the FEIS should describe management of these groundwater basins, for example, storage criteria, extraction of stored surplus water, and protections for users of a shared aquifer.

General Environmental Analysis Comments

12 1. The environmental analysis is based upon computer models simulating potential future Lake Mead and Lake Powell surface elevations and flows in the Lower Colorado River. Many model assumptions are made (pg. 3.3-9). Given the large number of assumptions, the FEIS should include sensitivity analyses for those parameters which may be especially vulnerable to slight changes in assumptions, e.g. fisheries and sensitive species. Parameters which may be of

1

9: The direct, indirect, and cumulative effects of the interim surplus criteria alternatives were analyzed within the project area, which extends from the upper reaches of Lake Powell to the Southerly International Boundary with Mexico within the 100-year floodplain. Off-river effects of storage and use of surplus water have been or are being addressed in existing or ongoing NEPA and/or California Environmental Quality Act and California Endangered Species Act compliance documents as appropriate. These activities are authorized by state actions. These include the Quantification Settlement Agreement PEIR, Secretarial Implementation Agreement EA, IID/SDCWA Transfer EIS/EIR, and the San Diego County HCP. The federal government does not have jurisdiction over groundwater aquifers, recharge sites or other off-stream storage sites within the States.

10: The Rule would establish the procedural framework for the Secretary to follow in considering, participating in, and administering Storage and Interstate Release Agreements (SIRA). The Rule establishes a framework only and does not authorize any specific activities. The Rule is based on the understanding that this type of offstream storage is a beneficial use of Colorado River water. To date no SIRA have been received by Reclamation for review and approval. California, specifically MWD, has voiced interested in interstate storage in Arizona. However, the quantity of water for storage and retrieval is substantially in excess of what is permitted by law for the Arizona Water Banking Authority. MWD's schedule for storage and retrieval also does not comply with Arizona State law. It is unknown if MWD would revise its proposed storage and retrieval quantities and schedule to meet Arizona law or if Arizona would amend its law. It is highly speculative if interstate banking under the Rule would benefit MWD considering MWD's development of its own storage facilities for intrastate storage purposes. It should be noted that California entities have and are presently storing portions of their basic and surplus apportionments for intrastate purposes. Interim surplus is unlikely to vary in quantity or quality from surplus Colorado River water already delivered. Intrastate storage activities/facilities are not within Reclamation's jurisdiction but are regulated by state and local regulations and compliance requirements under the California Environmental Quality Act (CEQA). Some groundwater projects may require Federal permits or approvals thus a joint CEQA/NEPA may be prepared for the Cadiz, Hayfield/Chuckwalla , and Desert/Coachella projects. A draft EIR/EIS and Supplement for the Cadiz project has been published. Environmental documents for the latter two projects are in progress.

11: Comment noted. See response to Comment 56-10.

12: The FEIS includes sensitivity analyses related to California intrastate transfers and the Lake Mead elevation at which shortage is declared.

cont'd critical concern to the Basin States, such as level of water supply depletions during shortages, should also be considered for sensitivity to different model assumptions.

13 2. The DEIS states that interim surplus criteria alternatives are not expected to affect flows in the Colorado River between Glen Canyon Dam and Lake Mead because it is assumed flow release patterns would be determined by the Glen Canyon Adaptive Management Program pursuant to the Glen Canyon Dam Operations Record of Decision (ROD) (pg. 3.2-5, 3.9-13). Although the Glen Canyon Adaptive Management Program would still be in effect, the timing and magnitude of releases from Glen Canyon Dam could be influenced by interim surplus criteria and subsequent equalization requirements between Lake Powell and Lake Mead. We note that even slight changes in flows can significantly alter the configuration of whitewater rapids within

14 the Grand Canyon changing the level of risk and safety. The FEIS should include a summary of the Glen Canyon Dam Operations ROD and additional data supporting the assumption of no affect on river flows.

WATER NEEDS ASSESSMENT

15 EPA has concerns with both the assumptions and calculation methods for water needs projections. The DEIS appears to use water supply projections provided by the States. It is not clear whether Reclamation has evaluated these projections to determine whether they are fully protective of beneficial uses, ensure efficient use of water, and integrate aggressive water conservation and demand management. We recommend the FEIS describe the processes used by the States to derive their water supply projections and whether these methods assure that water would not go to waste, go to environmentally harmful areas, or hinder achieving water quality objectives within the scope of applicable state water law.

TRANSBOUNDARY EFFECTS

16 1. Interim surplus criteria could reduce by up to 37% the frequency of Mexico receiving surplus water (pg. S-14, Section 3.16). The release of excess flood flows could also decrease. The lower frequency of surplus water and excess flood flows to Mexico could significantly reduce the amount of flows reaching the Colorado River Delta (Delta). Historically, the Delta was an extensive and rich wetland area of significant cultural and economic importance to the Cocopah Indian Tribe and other Mexicans of the Gulf of California. Already greatly depleted and only recently partially revived by excess flood flows, further reduction of Colorado River flows could have adverse effects on Delta wetlands and hinder efforts to restore this area.

We urge Reclamation to actively work with Mexico, the International Boundary and Water Commission (IBWC), States, Federal agencies and other stakeholders in restoration of the Delta region. We understand that such a process is under development. We would like to be

13: The Bureau has determined that the Adaptive Management Program will protect whitewater boating opportunities in the Colorado River between Lake Powell and Lake Mead in compliance with the Grand Canyon Protection Act. Therefore, the interim surplus criteria would not adversely affect whitewater boating opportunities in the Colorado River. The Grand Canyon Protection Act directs the Secretary, among others, to operate Glen Canyon Dam in accordance with the additional criteria and operating plans specified in section 1804 of the Act and to exercise other authorities under existing law in such a manner as to protect, mitigate adverse impacts to, and improve the values for which Grand Canyon National Park and Glen Canyon National Recreation Area were established, including but not limited to the natural and cultural resources and visitor use. The Glen Canyon Dam Adaptive Management Program (AMP) was established as a Federal Advisory Committee to assist the Secretary of the Interior in implementing the Grand Canyon Protection Act. We agree that interim surplus criteria could have an influence on releases from Glen Canyon Dam; however, releases will continue to be governed by the criteria in the Record of Decision which was developed in full consideration of both the safety and quality of recreational experiences in Glen and Grand Canyons. A summary of the Glen Canyon Dam Record of Decision has been included as Appendix D of this document.

14: The ROD for the Operation of the Glen Canyon Dam is included as Attachment D. Pertinent information from it is summarized in various sections throughout the FEIS. The section on river flows (3.6) identifies that the action alternatives would have an effect on the frequency of Beach/Habitat-Building Flows and Low Steady Summer Flows.

15: Reclamation does not review and independently change the Tribes and States water supply projections, though Reclamation staff has some understanding of the calculation methods used. See response to Comment 56-29 of this letter for a complete description of Reclamation's process for assuring the beneficial use of Colorado River water.

16: The delivery of water to Mexico under all modeled conditions in this FEIS were consistant with the requirements of the Treaty. The diversion and use of such Treaty water is solely at Mexico's discretion. The delivery of excess flows to Mexico occurs when available flows in the Colorado River exceeds that amount that is necessary to meet the beneficial needs and uses of Lower Basin users in the United States. It is not within Reclamation's discretionary authority to make unilateral adjustments to water deliveries to the international border. Also, as mentioned in response to Comment 56-7, potential effects on habitat and special status species along the river in Mexico and efforts to restore the Delta are being addressed through continued coordination with Mexico. The Executive Order on Environmental Effects Abroad, as discussed by section 3.16.2, focuses on impacts to natural resources, and specifically excludes consideration of socioeconomic impacts.

cont'd active participants in this process. When appropriate, please contact Catherine Kuhlman of our Water Division at 415-744-2001, regarding upcoming meetings and forums. Per Mexico's request (Attachment Q), the FEIS should describe mitigation for possible transboundary impacts and means to address the concerns of Mexico. Potential indirect and cumulative impacts to the Cocopah Indian Tribe and Mexican residents of the Gulf (e.g., shrimp fisherman) should also be acknowledged and described in the FEIS.

17 2. Describe in the FEIS what water is used to satisfy the 1.5 maf allocation to Mexico. Is this water part of the 7.5 maf allocated to the Lower Basin States? Is it taken from unused Lower Basin States' apportionment? or Is this water taken equally from the upper and lower basins? Describe where this water would come from under shortage conditions.

WATER QUALITY

18 1. The DEIS appears to address only salinity (total dissolved solids) and potential impacts to the Southern Nevada Water Authority (SNWA) drinking water intakes in Lake Mead. EPA is significantly concerned with the potential impacts of interim surplus criteria on perchlorate, nutrients, and mercury in fish tissue. It is clear that Lake Mead surface elevation and volume would decrease thus reducing dilution effects and potentially changing contaminant movement from Las Vegas Wash and within Las Vegas Bay (Section 3.5). The FEIS should evaluate the potential direct, indirect, and cumulative effects of interim surplus criteria on the concentration and movement of perchlorate, nutrients, mercury and other heavy metals within Lake Mead and downstream. Modeling and monitoring of these contaminants and projection of downstream flows may be needed. Amounts of mercury and other heavy metals in fish tissue should be described more accurately. These contaminants are of grave concern because of their potential adverse health effects.

19 2. Perchlorate contamination is already known to travel down to the international border. Thus, the FEIS should evaluate potential contaminant impacts to drinking water intakes below Lake Mead. Of special interest are the intakes for MWD's California Aqueduct, especially since the interim surplus criteria will be providing more water for MWD.

20 3. Lower Lake Mead surface elevations could result in a reduction in water quality from tributaries (pg. 3.5-22). The reduced water quality is a result of longer channels, more evaporation and heating, and the resulting greater concentration of contaminants. The DEIS states that this adverse effect may be offset by the development of riparian habitat at the mouths of the tributaries which would help filter the water. If this is the case, Reclamation should consider sponsoring efforts to restore tributary wetlands as mitigation for reduced water quality. For example, there is a major effort to restore the historical wetlands of Las Vegas Wash which Reclamation could actively support.

17: The U.S.-Mexico Treaty of 1944 guarantees an annual quantity of 1.5 maf to Mexico. This quantity is a scheduled delivery from Lake Mead, in addition to the 7.5 maf allocated to the Lower Division states. The Colorado River Compact of 1922 stated that if this right was recognized, the water would be supplied by water over and above the Basin States apportionment of 16 maf, and that if such water was insufficent, any deficiency would be borne equally by the upper and lower basin. Under shortage conditions, Article 10 (b) of the Treaty states "in the event of extraordinary drought or serious accident to the irrigation system in the United States....the water allotted to Mexico....will be reduced in the same proportion as consumptive uses in the United States are reduced."

18: Comment noted. Additional information regarding contaminants has been added to Section 3.5 of the FEIS.

19: Through a 1999 consent agreement with the Nevada Department of Environmental Protection, remediation of perchlorate in groundwater entering Las Vegas Wash and Lake Mead will continue into the future which will reduce the concentration of perchlorate down river, at the MWD intake, and below this point. It is expected that the California standard of 18 ppb for drinking water will not be exceeded but reduced in Colorado River water through time. See also response to Comment 56-18.

20: Reclamation is a partner in the Las Vegas Wetland Restoration program and other programs around Lake Mead and along the Lower Colorado River.

ALTERNATIVES ANALYSIS

Seven States Consensus Alternative

1. Since the alternative announced in the August 8, 2000 Federal Register (Volume 65, Number 153, pages 48531- 48538) appears to represent a consensus agreement between the seven basin states, we anticipate the selection of this alternative as the preferred alternative in the FEIS. As such, we urge Reclamation to provide a full description and environmental evaluation of this alternative in the FEIS. While this alternative may be within the range of the alternatives evaluated in the DEIS, we believe it is important to include a full evaluation of its potential effects in the FEIS to provide a clear comparison with other proposed alternatives. This comparison is of special interest because the Seven States Consensus alternative appears to propose significantly more complex criteria and a shortage determination elevation well below existing management triggers or those proposed by the other alternatives.

21 As stated, the Seven States Consensus Alternative appears to propose a shortage determination criteria of 20% or greater probability of going below a Lake Mead surface elevation of 1050 msl. This shortage criteria is of significant concern because it is well below the minimum elevation level required for power generation (1083 msl). In addition, reduction of Lake Mead surface elevations below 1050 msl could have significant adverse effects to recreation, water quality, and future water supplies.

2. Give the close link between interim surplus criteria and transition of California down to its 4.4 maf basic apportionment, we are pleased with the proposed review of progress in implementation of California's 4.4 Plan and the specific California water conservation targets set out in the Seven States Consensus Alternative.

3. The Seven States Consensus Alternative includes a commitment by the Metropolitan Water District (MWD) to reparation to Arizona for increased water supply shortages. This reparation would be by MWD agreement to forbear the delivery of a specific quantity of Colorado River water. It appears that the water which would be foregone by MWD would be Priorities 6 and 7 water. The FEIS should describe how this reparation would work, especially in the likely shortage years when water may not be sufficient to provide for priorities 6 and 7 water.

General Alternatives Analysis Comments

22 1. We strongly recommend anticipated storage and use options for the surplus water be described (e.g., groundwater banks, storage reservoirs, recharge basins). Although these options may already be in use, water available pursuant to interim surplus criteria could significantly modify the management of these facilities and the rate and magnitude of indirect effects.

4

21: The preferred alternative in this FEIS was derived from the draft Seven States Proposal, and was evaluated at the same degree of detail as the other alternatives. Reclamation did not structure the preferred alternative precisely as described in that draft proposal, but made some changes for consistency with the purpose and need of the proposed action, Reclamation policy and operational procedures. The proposed shortage determination criteria were not included in the preferred alternative. Reclamation regards California's proposed reparation to Arizona for increased shortages as a matter between California and Arizona, and has not included the reparation in this FEIS. The Secretary intends to honor reparation agreements among various entities.

22: Reclamation does not federalize intrastate uses of Colorado River water and does not follow the water for environmental compliance purposes once delivered to a water user's point of diversion. The federal government does not have jurisdiction over groundwater aquifers, recharge sites or other off-stream storage sites within the States. Those activities are authorized by state and local actions. Other federal permits and environmental compliance may be required for specific facilities on a case by case basis. See also response to Comment 56-10.

23 2. The DEIS states that the Flood Control Alternative conditions were modeled with the assumption that California's 4.4 Plan was not implemented (pg. 3.3-9). The FEIS should describe the rationale for this modeling assumption. Was the assumption made that the 4.4 Plan would not be implemented because the probability of surplus determinations under the Flood Control Alternative is even lower than baseline?

24 3. While other Lower Basin States may receive less than their full apportionment under shortage conditions, the DEIS appears to assume that California would never receive less than 4.4 maf/year (pg. 3.4-20). Is this assumption made because 4.4 maf is already considered a shortage condition for California? Is this assumption valid? Are there conditions under which California may be unable to receive its full basic apportionment?

25 4. Instead of referring to Attachment G, Lower Division Depletion Schedule and H, Draft Interim Surplus Guidelines; we suggest the description of alternatives include a summary of the information provided in these attachments. For example, describe the percentage of years that water transfers would occur to California under Tier 2 of the Six States Alternative versus just referencing Attachment G. The alternative descriptions should also include specific information on the water use restrictions which would apply for each surplus criteria tier. For instance, what types of storage and use would be acceptable for surplus water obtained during a Partial Domestic Surplus year pursuant to the Seven States Consensus alternative?

26 5. The FEIS should also provide short narratives explaining how the Lower Division Depletion Schedule (Attachment G) and Draft Interim Surplus Guidelines (Attachment H) would be interpreted. How would the Guidelines work if different surface elevation levels are triggered in different years? For example, if surplus is declared under Tier 3 of the Six States Alternative in 2002, what would be the amount of surplus released in year 2005, if surplus were declared under Tier 2 in 2005? Providing a simple example of how the Guidelines would be implemented would be helpful.

27 There is a similar risk of confusion regarding the California Alternative. This alternative appears to trigger surplus determination based on a prediction of what surface elevation levels would be achieved in the year 2015. For instance, what surplus would occur if 2015 surface elevations are at 1166 msl and 2001 surface elevations are at or above 1098 msl?

MONITORING AND ADMINISTRATION

1. A key objective of interim surplus criteria is to provide MWD surplus water, when available, to meet direct water supply demands while California's 4.4 Plan programs and projects are implemented, as well as to provide a source of water for conjunctive use and storage programs (pg. 12 August 8, 2000 Federal Register Notice on Seven States Consensus

23: Implementation of the California Plan and intrastate transfers was included in the FEIS Flood Control alternative. See response to Comment 37-11 for more details.

24: Shortage conditions for the Colorado River have not been defined. They were assumed for modeling purposes in the EIS. Section 3.3.3.4 describes the Lake Mead water level protection assumptions and the modeling conditions under which California could receive less than its normal apportionment.

25: See Attachment H for additional information.

26: Additional discussion has been added to the Lower Division Demand Schedules (FEIS Att. H) regarding the influence on surplus water deliveries. The guidelines (FEIS Att. I) would be applied annually to whatever water surface elevation existed.

27: The surplus triggers would be used once a year to determine whether surplus conditions would occur in the following year. For example, in August 2007, while preparing the AOP for 2008, Reclamation would project the January 1, 2008 Lake Mead elevation using our 24 month study (2 year model). If the water surface elevation of Lake Mead were projected to be above approximately 1163 ft, the surplus volume stipulated for Tier 1 for 2008 would be triggered for delivery during 2008, regardless of the resulting lake level within year 2008. The monthly delivery to each Lower Division state would be according to its monthly surplus water demand schedule for Tier 1. In addition, the amount of surplus water allowed for delivery in 2008 would be subject to a determination of beneficial use by the Regional Director, Lower Colorado Region.

28 Alternative). Therefore, Reclamation states that failure of California to carry out the 4.4 Plan may result in termination or suspended application of the 15-year interim surplus criteria (pg. 1-22). A condition of interim surplus criteria continuation would be a showing of satisfactory progress in implementing the 4.4 Plan. The FEIS should provide more details on how "satisfactory progress" would be defined and measured. For example, describe how water conservation will be interpreted, monitored, and accounted for under California's 4.4 Plan.

29 2. The FEIS should also describe how surplus water would be monitored and measured. Effective and sustainable management of water supplies depends on an accurate knowledge of water supply availability and water use. This knowledge can only be obtained through monitoring and accounting of water supply and use. We urge Reclamation to make a firm commitment to timely and accurate monitoring and accounting of the surplus water depletions. We recommend a monitoring and accounting plan be included in the FEIS.

30 3. Attachment D Surplus Criteria Proposal by Six States includes a section requesting a commitment by Reclamation to move forward with its identification of Lower Basin water users who are either exceeding contract entitlements or are diverting water without a contract. Furthermore, it states that Reclamation must take steps necessary to require more accurate measurement and reporting of diversions and develop accurate techniques for determining both measured and unmeasured return flows to the river. EPA concurs with this statement of the Six States. We also firmly believe that an era of limits in the Lower Basin has begun and that accurate measurement of use and control of illegal diversions and uses is critical to the long-term sustainable use of the Colorado River water supply.

MITIGATION

31 1. The FEIS should describe whether MWD would provide reparation for increased shortages to specific Indian Tribes which are dependent upon CAP allocations. If reparation is not proposed, the FEIS should describe mitigation measures for potential adverse effects to Indian Tribes and their Indian trust assets.

32 2. Reparations to Nevada for potential increased shortages are also not described. The FEIS should provide the rationale for this decision.

TRIBAL ISSUES

33 1. Section 3.14 describes potential impacts to Indian trust assets. While Reclamation appears to have coordinated closely with the Ten Colorado River Tribes and Tribes utilizing Central Arizona Project (CAP) water, it is not clear whether the concerns of Tribes located in shared water basins/aquifers where the surplus water would be stored have been addressed. The

28: The purpose of this action is not to get California to 4.4 maf and thus the 4.4 Plan (now the CA Plan) is not within the scope of this EIS. Water transfers within California and their effects on and off the river are being handled by joint and separate NEPA and CEQA documentation. Through monitoring, verification, and accounting of all users uses, particularly as California begins to implement transfers and develop conservation programs, these data will be considered as part of the AOP process for measuring California's success in reducing its use to 4.4 maf. This description of monitoring, verification, and accounting of water use involves ongoing Reclamation processes that are outside the purpose and need of this action.

29: Reclamation is currently and has been monitoring diversions, return flows and consumptive uses by water users along the Colorado River since 1964. Reclamation is required by the Supreme Court (Article V, Supreme Court Decree in Arizona v California dated March 9, 1964) to prepare and maintain complete, detailed and accurate annual records of: releases of water through regulatory structures, diversions, returns and consumptive uses by State and diverter, water ordered but not diverted, and deliveries to Mexico in satisfaction of their entitlement. Reclamation began preparing this report in 1964. Since then, the accounting and monitoring procedures have been augmented with a monthly report tracking users diversion, returns and consumptive uses throughout the year. In addition to the monthly reporting and end of year accounting, Reclamation approves water use estimates by major water users before the beginning of each calendar year. Title 43, CFR 417 requires entitlement holders to provide an estimate of monthly diversion requirements (schedule), for Reclamation's planning purposes, prior to the beginning of the calendar year. The major water users are also required by contract to provide a monthly water use report which includes actual diversions and return flows. Others either report annually or have diversions and return flows reported by the USGS at the end of the year. This information is reported to all interested parties in the monthly reports and the annual report titled "Compilation of Records in Accordance with Article V of the Decree of the Supreme Court of the United States in Arizona V. California, Dated March 9, 1964." The schedules are reviewed by the water conservation, water contracts, and water operations staff to ensure that the next year demands do not exceed contract holders entitlements and that the water requested will be available in the system. Monthly reports are tracked throughout the year to monitor trends in water use which indicate when users are likely to exceed their entitlements. When surplus water is available, entitlement holders are allowed to divert up to their entitlement for surplus water, if any, in addition to their basic entitlement for a normal year in which no surplus would be available. How much surplus water was diverted by an entitlement holder can be determined only at the end of the calendar year by comparing the actual use, as reported in the Decree Accounting report, to their entitlement. Reclamation is developing a method to compare actual use to entitlements for the purpose of identifying surplus uses and uses in excess of entitlement.

30: Reclamation is taking steps to require more accurate measurement and reporting of diversions and return flows to the river. The most common case of water users who divert water without a contract involve persons who divert water from a well that is replaced with Colorado River water. Reclamation is, and for the last 5 years has been, funding the Geological Survey to perform an inventory of wells in the Colorado river flood plain and on adjacent terraces and slopes that have the potential to pump Colorado River water. The Geological Survey, at Reclamation's request and with Reclamation funding, has completed two reports which document a method for use in making a presumption if the use of water pumped by a well is pumping Colorado River water. The first report, published in 1994, provides a method of accounting for the lower Colorado River between the mouth of the Grand Canyon and Laguna Dam. The second report, published in 2000, provides a method of accounting for the lower Colorado River from Laguna Dam to Mexico. All uses of Colorado River water must be reported in the Colorado River water accounting report required by the Supreme Court (Article V, Supreme Court Decree in Arizona v California dated March 9, 1964). To date, the initial well inventory is about half complete and the methods documented in the reports identified above have been used to presume if new or planned wells would likely pump water that should be accounted for as Colorado River water. Few existing wells have been made subject to the methods described within the above identified reports. Reclamation recognizes that the accounting of water required by the Supreme Court must include accurate records of diversions, return flows, and consumptive use. Past efforts to uniquely and separately identify unmeasured return flows for individual diverters have met with mixed success. While estimates for many diverters currently exist, they cannot be considered definitive. Reclamation and others recognized many years ago that estimates on unmeasured return flows could not be made without first estimating consumptive use by some method other than measured diversion less measured return. To this end, the lower Colorado River Accounting System (LCRAS) was developed to estimate agricultural consumptive use as the evapotranspiration of the crops and related uses plus a portion of the residual of a water budget between major structures along the lower Colorado River. CONTINUED ON NEXT PAGE

cont'd FEIS should include more specific information on the government-to-government meetings held with all potentially affected tribes, a list of each Tribes' concerns, and how these concerns have been addressed. We are especially interested in how Indian trust assets would be protected in unadjudicated shared water basins/aquifers.

34 2. The majority of Section 3.14 is focused on potential impacts to Tribes that utilize CAP water. The evaluation is confusing because it refers to the loss of Non-Indian Agriculture water when discussing losses to Indian Central Arizona Project customers. We suggest providing a table with data of the potential loss of water to the Tribes (either collectively or for each Tribe) for each interim surplus criteria alternative for 2015 and 2050 with the assumption that the Gila River Indian Community Settlement has been implemented.

BIOLOGICAL EFFECTS

35 1. The DEIS appears to focus on potential impacts to special species within the region encompassed by Lake Mead, Lake Powell, and the Grand Canyon between Glen Canyon Dam and Lake Mead. It is not clear how extensively potential impacts to species below Lake Mead were addressed. We recommend the FEIS include, at least a summary, of potential impacts to biological resources in each of the significant reaches of the river (Lake Powell, Glen Canyon Dam to Lake Mead, Lake Mead, and below Lake Mead to the International Border).

36 2. Although the DEIS references the Biological and Conference Opinion on Lower Colorado River Operations and Maintenance (BCO), it does not provide a summary of the 17 specific provisions made pursuant to the reasonable and prudent alternative as defined by the BCO. We recommend the FEIS provide this summary in order to provide a clear picture of what actions Reclamation is taking to benefit the riparian region of the lower Colorado River and its special status species.

37 3. We note that a separate Section 7 Endangered Species Act consultation is being conducted for this DEIS (pg. 1-25). We understand that consultation is not yet complete and that there is the intent to include consultation results in the FEIS. EPA supports this intent and urges Reclamation to make a firm effort and commitment towards completing consultation and providing a copy of US Fish and Wildlife Service decision within the FEIS.

GENERAL ISSUES

38 1. The DEIS states that the All-American Canal is used to divert water for Mexico (pg. 1-19). The FEIS should provide a short description of how this is done or provide this information on one of the project maps.

30 (cont'd): LCRAS is fully functional and is undergoing a demonstration phase. The LCRAS program has also funded a study by the Geological Survey to determine the standard error of estimate of the stream-flow gages along the mainstream used by the LCRAS water budget. The results of this study will not only improve LCRAS, but will also identify and quantify the practical limits of water measurement capabilities with the current measurement network in place; providing the basis for an analysis of technically feasible and economically justifiable modifications to the current water-measurement network. The effort to identify diverters who exceed their entitlements includes an analysis of water use by riparian vegetation within diverter boundaries to determine the proper portion of water use by riparian vegetation that should be included in the consumptive use calculation for each diverter. The implementation of LCRAS, together with a determination of what portion of water use by riparian vegetation should be charged to each diverter, will provide a complete and supportable value of consumptive use that can be compared with the contract entitlement of the diverter.

31: See response to Comment 56-6. Reparations as provided in the Working Draft of the Seven States Plan would assist all users of CAP water.

32: Reclamation is not proposing to make reparations part of the interim surplus criteria.

33: This issue is handled by an overall settlement in central Arizona between the United States and the CAWCD. The United States has made agreements which protect the Indian portion or interest in a shared aquifer. In addition, the storage of surplus water in an aquifer in a shared basin is considered a positive impact by tribes located within shared water basins because the water stored in the aquifer is increased. Chapter 5 has more specific information regarding the consultations with the Tribes.

34: Some non-Indian agricultural water has been reallocated to Indian users of CAP water. When non-Indian agricultural water is allocated to Indians, the water retains its non-Indian agricultural priority and is referred to as "non-Indian agricultural water". Table 3.14-4 shows the potential loss of water by tribes under the GRIC Settlement. Line 3 of the title of Table 3.14-4 has been corrected to read, "Likely Future With GRIC Settlement."

35: Additional analysis of potential effects below Lake Mead have been incorporated into Section 3.5, Water Quality, Section 3.7, Aquatic Resources, (potential effects of changes in Hoover Dam release water temperature on fisheries below Hoover Dam to Lake Mohave), and Section 3.8 to discuss potential effects between Hoover Dam and the SIB.

36: The noted documents are incorporated by reference and are available for review by the public at Reclamation's Office. The BCO has been provided to interested public and agencies and is available on Reclamation's web site.

37: Section 7 consultation is in progress.

38: Please refer to Section 3.3.4.5.4 for a description of river flows below Imperial Dam and delivery of water to Mexico.

DEIS COMMENTS, BOR, INTERIM SURPLUS CRITERIA, SEPT. 2000

39 | 2. Chapter 3 Affected Environment and Environmental Consequences often illustrates potential effects using figures and charts (e.g., Figure 3.3-19a-d, Figure 3.4-6). We suggest providing an explanatory example on how to accurately interpret these figures and charts.

40 | 3. Modeled annual depletions of various interim surplus criteria (e.g., Figure 3.4-12, pg. 3.4-22) indicate surplus conditions for the period 2001 to 2004. The FEIS should provide an explanation for this surplus. Is the high level of depletions available for these years because the system is already relatively full and can therefore provide surplus water for the next few years? or is this surplus due to the continued availability of unused Arizona apportionment?

8

39: Additional explanation has been added to Section 3.3.and Section 3.4 with respect to the interpretation of the figures in these sections and the meaning of the analysis results.

40: The observed surpluses are due to relatively full starting conditions of Colorado River reservoirs. You will notice that the FEIS graphs have been modified. See Section 3.3.4.1 for a detailed explantion.

SUMMARY OF EPA RATING DEFINITIONS

This rating system was developed as a means to summarize EPA's level of concern with a proposed action. The ratings are a combination of alphabetical categories for evaluation of the environmental impacts of the proposal and numerical categories for evaluation of the adequacy of the EIS.

ENVIRONMENTAL IMPACT OF THE ACTION

"LO" (Lack of Objections)

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

"EC" (Environmental Concerns)

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

"EO" (Environmental Objections)

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

"EU" (Environmentally Unsatisfactory)

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

ADEQUACY OF THE IMPACT STATEMENT

Category 1" (Adequate)

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analysed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analysed in the draft EIS, which should be analysed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640, "Policy and Procedures for the Review of Federal Actions Impacting the Environment."

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In Reply Refer To:
AESO/SE

September 6, 2000

AUG '00

Memorandum

To: Regional Director, Lower Colorado Region, Bureau of Reclamation, Boulder City, Nevada (Attn: Jayne Harkins LC-4600)

From: Field Supervisor

Subject: Comments on Draft Environmental Impact Statement for Colorado River Interim Surplus Criteria, July 2000

The Fish and Wildlife Service has reviewed the draft Environmental Impact Statement (DEIS) for Colorado Interim Surplus Criteria and we have the following comments for your consideration in finalizing this document. General comments on the document are followed by specific comments relevant to each section of the document.

General Comments

The Service appreciates the efforts made to model the future water surface elevations, river flows and flood releases that have been made in this document. Discussions with Bureau of Reclamation personnel have assisted the Service in understanding the modeling assumptions and constraints and we thank the BOR for providing this opportunity. Future reservoir elevations, and thus the opportunity for declaration of surplus conditions over the interim 15 year period, are largely dependent upon inflows to the system, which in turn are dependent upon precipitation patterns that cannot be predicted. The models must therefore look back over the inflow records for the last 85 years to provide a potential view into the future. The effects to water supply and distribution that result from the application of the surplus alternatives to the model are thus entirely hypothetical and may never be realized under actual conditions. We suggest that this fact be stressed to assist the reader in understanding the implications of the action. Additionally, we have some other suggestions for improving the use of modeling.

1

The analysis results from using the models are not clearly articulated, and often the results are not connected or integrated to other sections where they are used. For example, Arizona depletions in Figure 3.4-5 show a very large median decline that is not reflected in Lake Mead elevations for the same time period. The relationship is unclear. Another example is in the river flow section, 3.3-32, where the relationship between the two analyses and the graphs and tables is not clear and is difficult to follow. Table 3.3-13 is especially confusing since water levels appear to be going

2 cont'd below

1: Comment noted.

2: Additional explanation has been added to Section 3.3.and Section 3.4 with respect to the interpretation of the figures in these sections and the meaning of the analysis results. Mean monthly flows between Hoover and Parker Dams would increase during the interim surplus criteria period as a result of more frequent surplus deliveries (compared to baseline conditions).

2 cont'd — up when they should not logically do so. There are also several places in the various figures and tables where different colors or scales or patterns are used than in others of the same type and this is confusing. For clarity we recommend graphing figures that show percent of time levels are likely to occur as either "greater than or equal to" or "less than or equal to" and not use both in different places.

3 — There are also many subsections titled "baseline" that actually have all the graphs and tables that contain the surplus alternatives along with the baseline. This is helpful to provide side by side analysis. However, the text supporting the figures and tables does not always confine the observations to the baseline condition, and often there is no discussion anywhere later of the effects from the surplus alternatives. Please provide a discussion of all results in the appropriate places.

4 — In Section 3, there are many graphs in which the various percentile lines suddenly join, for example, when the 50th and 10th percentiles become the same level. It would be helpful to the reader if the reason why this occurs was more fully explained. It may not be intuitively obvious why the 50th percentile (50% above and below) should suddenly be equal to the 10th percentile (90% above and 10% below).

5 — At several places in the DEIS, the purpose and need for the adoption of interim surplus criteria are stated to be to increase the "predictability" and reduce the "uncertainty" of a surplus being declared by the Secretary. This is not exactly correct. The predictability of the 75R no action or Flood Control alternatives is based on the same water information as the more liberal alternatives. What is actually different is the probability that a surplus would be declared under the more liberal alternatives. The point of this exercise is to provide a way for California to be able to take more than its 4.4 maf apportionment while it implements the 4.4 Plan. This requires that the chance of a surplus being declared be increased from the baseline/no action.

6 — We question the separation of NEPA compliance for interim surplus criteria from that for the California Colorado River Water Use Plan (the 4.4 Plan) appears to be questionable. The DEIS and the 4.4 Plan clearly state that without the water provided by some form of interim surplus criteria, the 4.4 Plan cannot be implemented, thus the reason why the criteria are being proposed is clear. The California and Six States alternatives analyzed in the DEIS are very clear on that point as well. We are also concerned that the Flood Control alternative does not have the same inclusion of the water transfers from 4.4 Plan that are in the California, Six States and Shortage Protection alternatives. This suggests that the Flood Control alternative is not meeting the goal of the designation of interim criteria and its validity as an alternative is then questionable. Please explain why this alternative is treated differently.

7

8 cont'd below — We have other questions regarding alternatives. Given that this project is being done to provide California with a "soft landing" in bringing its actual water use in line with its allocation, we do not see any alternative that only provides exactly the amount of water each year over the 15 year period to keep Metropolitan Water District's aqueduct full. Additional water sources, such as

3: Comment noted. Additional explanation has been added to Section 3.3 and Section 3.4.

4: Specifically, changes in deliveries are often due to a "discrete" condition, such as the change from normal to shortage conditions. This can result in a sudden change in the 50th percentile line, as seen in Figure 3.4-5.

5: The purpose and need of the action is stated correctly. If surplus water is available all Lower Basin States may benefit as their water use needs approach and exceed their allocation. Nevada currently is using surplus water in calendar year 2000 and Arizona will benefit in the future when their need exceeds 2.8 maf. Reclamation's stated purpose to provide greater predictability allows Reclamation and users to project reservoir conditions and uses several years ahead. This allows users advance knowledge of when surplus will and more importantly will NOT be available. The current AOP decision making does not give basin users predictability regarding surplus designations. The Secretary may use the increased probability of surplus, given certain hydrologic assumptions, in making his decision regarding the choice of interim surplus criteria.

6: See response to Comment 13-5

7: The water transfers are in the Flood Control Alternative operational modeling used for the FEIS.

8: The proposed interim surplus criteria are not intended to provide California only with the amount of water to keep the Colorado river Aqueduct full. As is currently the case, when the Secretary determines that surplus water is avilable in the lower Colorado River Basin, the surplus water is available to the three Lower Division states as discussed in the Decree in Arizona v. California. Under the proposed interim surplus criteria, all three states may avail themselves of surplus water. Although, all use schedules may not have included unused apportionment available from other states . Certainly, the Secretary, each year when he develops the AOP and approves water orders, would consider Article II(B)6 of the Decree.

8 cont'd | unused allocation from Arizona and Nevada, should be factored into the amount actually needed by California This concept is mentioned in the Six States Plan, but the analysis on that plan does not appear to include this point. If this idea was rejected early on, it should be mentioned as is the Pacific Institute's proposed alternative.

9 | The descriptions of the alternatives in the Attachments contain ideas and concepts that do not appear to be reflected in the models or analyses done on the results. This includes requirements for California to meet at intervals during the 15 years, commitments to offset increased risks to Arizona that result from increasing supplies of water to California and other issues. It may be appropriate to include in the main part of the DEIS a discussion of these other issues to provide a fuller picture of each alternative.

9: The alternatives based on proposals by the states do not necessarily contain all the provisions of the state's proposals.

10 | We are concerned about the inclusion of the approximately 1.2 million acre foot increase in Upper Basin water depletions between 2000 and 2050 being considered part of the baseline for running the models. Environmental compliance under the National Environmental Policy Act and Endangered Species Act may not have been completed for all 1.2 million acre feet. Future water depletions should be considered under cumulative effects for NEPA, not as baseline unless compliance has been completed. Under the ESA, future Federal actions cannot be considered as cumulative because they must undergo their own section 7 consultation, so they do not factor into the analysis at all. It is important to provide for accurate analysis in both the NEPA and ESA forum. It may be useful to provide an explanation of why this increase in depletions is considered as it is in the document.

10: Reclamation did not structure the alternatives precisely as described in the attached proposals, but made some changes for consistency with Reclamation policy and operational procedures.

11 | The DEIS could be more clear on which criteria, the 75R or Flood Control, has been used since 1998 to declare surplus conditions on the river. Our impression was that Flood Control criteria devised by the BOR and Corps of Engineers to provide for adequate space in Lake Mead was the governing factor. However, there is mention in the Attachments of the development of the 75R criteria to address surplus determinations. Please clarify which is correct for use as the no action alternative and which would be the default post 2015.

11: The 75R strategy was used for the baseline to represent the operation that has occurred in the recent past. In Reclamation's judgement the results of modeling the operation of Lake Mead with the 75R strategy provided a suitable representation of the past conditions. The choice between 75R and 70R was a "close call"; however, and as the result of public comment of the DEIS, Reclamation used the 70R strategy for operational modeling of the alternatives in this FEIS. While it is correct that the flood control operating rules have played a major role in operating the system and determining surplus water in the last few years, the flood control rules have not always been used so the average operation is not strictly consistent with the flood control rules. Moreover, in the future when flood control operation does not occur, surplus determinations will be made using the AOP process which considers a dynamic range of factors that may not involve flood control operations.

12 | The effects analysis concentrates on the river section in the Grand Canyon and often does not include the river sections from Davis Dam to Lake Havasu or the Parker to Imperial reach. Since there will be effects to these reaches, they should be included in the effects sections.

12: Additional discussion of potential effects below Lake Mead have been incorporated into Section 3.5, Water Quality; Section 3.8, Special-Status Species; and Section 3.7, Aquatics (potential effects of changes in Hoover Dam release water temperature on fisheries below Hoover Dam to Lake Mohave).

13 | There are many words and phrases in the text that could benefit from being placed in the Glossary such as the difference between water allocations, allotments and entitlements. Perhaps it would also be helpful to the reader if all words and phrases in the Glossary were highlighted somehow when they appear in the text.

13: The FEIS includes definitions in the glossary for water allocations, water allotments, and water entitlements. Words cited in the glossary will not be highlighted in the text of the document due to concern that it would be confusing and detract from the flow and readability of the document.

Specific Comments

Note: Specific comments are grouped by the section of the document. Where there are comments common to several parts of the section, for example, models and results for Arizona,

Nevada and California, they are provided once with the understanding they apply to all times the issue is presented.

Summary

Most of the comments in this section reflect ones that will be made in the appropriate DEIS section, but are provided here for completeness.

14 | Page S-2, S.1.4
The purpose and need for the action should more clearly focus on the need for California to have additional water in order to implement the 4.4 Plan, and that "predictability" is not a driving force for the interim criteria.

15 | Page S-3, S.1.5
Please explain why the California Colorado River Water Use Plan is not considered to be a part of this action since the interim surplus criteria are essential to its success.

16 | Also, under "Actions Related...", reasonable and prudent alternatives are not conservation actions. The latter are voluntary and the former are mandatory.

17 | Page S-4, S.2.1
Please clarify whether the 75R or the Flood Control alternative should be correctly considered the baseline condition.

18 | Page S-5, S.2.2.
Please clarify how this is different from the way past surpluses were declared. Also, please explain whether or not this alternative provides all the water anyone wants to request, or if it is limited to the amount of water over the 1211 elevation that can be given out to contract holders.

19 | Page S-6, S.2.4
Please explain what would be meant by adjustments to the tiers based on demand projections and other factors. Does this mean the tiers could be made more liberal or only more conservative? If more liberal, would additional compliance be needed?

20 | Page S-6, S.2.6.
Which option, the 75R or the Flood Control, would become the default criteria in 2016?

21 cont'd below | Page S-7, S.3.3.
Under Reservoir levels, it should also be noted that the lowest reservoir levels do not occur in January, which is when the value for the models is taken. Thus, reservoir levels in July, which for Lake Mead is the lowest month, will be lower than the analysis assumes. This difference has effects to the analysis. Also, although monthly fluctuations may be within the

14: The form and content of the summary has changed to reflect the FEIS. All Lower Basin States will benefit from the purpose and need for the action with the predictability of surplus triggers and deliveries that are dependable over the 15 year period. The surplus water that California will receive is replacement water for declining unused apportionment of the other Lower Basin States. Without the proposed action, under the No Action Alternative surplus determinations would be made by the Secretary through the AOP process. Under the Law of the River, California would still be entitled to 50% of any surplus determination and any basic or surplus apportionment unused by the other Lower Basin States. The purpose and need for this action will firm up water supplies for the next 15 years for water management purposes for all Lower Basin States.

15: The California Colorado River Water Use Plan is not part of the federal action because the Plan contains purely California state actions. Reclamation's only federal action is to develop and implement interim surplus criteria which has independant utility in Colorado River management. The Secretary can and has delivered surplus without these criteria as noted under the No Action Alternative. California could be sucessful in reducing its excessive use of Colorado River Water through the Seven Party agreement if the parties could resolve their differences. The Plan will augment the Seven Party agreement for future water needs and uses.

16: Comment noted

17: The 70R strategy has been used for the baseline in this FEIS.

18: Under this alternative, surplus water would be determined to be available using the same procedure that has been used in the past when flood control releases have been made. Surplus water determinations would be limited to years when flood control releases are needed. Once a surplus determination has been made, the Lower Division States would be allowed to divert as much surplus water as they can put to beneficial use. The estimated amounts of surplus water they would divert in specific future years are contained in the States surplus water demand schedules, as discussed in Section 3.4.

19: The elevations of the tiers in the California Alternative were selected so as to control the depletion of storage in Lake Mead and Lake Powell year by year in the light of the growing Upper Basin depletion schedules. The provision for adjustment is to compensate for shifts in Upper Basin water use and thus keep total Basin depletions in future years as presently projected under this alternative. The direction (up or down) in which the Upper Basin depletion schedule may change is conjectural. No additional NEPA compliance would be made in the event of such change.

20: After the 15-year interim period, the operation of Lake Mead would revert back to the AOL process, which is represented in the operation model by the 70R strategy for the FEIS.

21: The distinction between the summer low and the end-of-year level is noted in Section 3.3.4.2.3 of the FEIS. The summary has been rewritten.

5

21 cont'd | range of 15-20 feet, over the course of the year it may be as much as 75 feet. The point about reservoir levels not having gradual changes, but changing in very discrete ways each year, is well made.

Page S-8, S.3.4.

22a | How often would the 75R or Flood Control alternatives provide for a surplus declaration?

22b | There is also the question of when the entire allocation of a State is being used. Some Indian Tribes on the river are not using all of their water and the implication given here is that full allocations are being used by 2004.

23 | The issue of flood flows to Mexico is also raised. Mexico can only get its 200,000 acre feet of "excess" flood water under the Flood Control alternative, and then only after all beneficial uses under surplus water contracts in the U.S. are filled. The conditions under the more liberal alternatives that would provide Mexico with this water should be mentioned in this summary.

Page S-10, S.3.6.

24 | Flood releases should not just be reviewed in terms of damaging flows, but in terms of lower releases that may provide biological benefits to groundwater, backwater and marsh freshening and sediment transport. The Service recognizes that predicting these lower flows is more difficult, but the effects of losing these due to the liberal criteria may be important.

Page S-10, S.3.7.

25 | It is surprising to us that no effects to the fisheries in Lake Mead are predicted to occur. Data on effects of severe fluctuations, long-term reduced water levels and other factors is available in the literature on reservoir management (for example, see Ploskey 1983 and Hall 1971).

Page S-11, S.3.8.

26 | Special status plant species may also lose existing habitat if receding lake levels dries it out of usable condition. Also, new habitats may be colonized by other species and not provide habitat for the species of interest.

27 | Fluctuating water levels also have adverse effects to nesting of both Yuma clapper rails and black rails. While marsh habitat may be formed, water level fluctuations may render it less suitable.

28 | Page S-12, S.3.8.

There may be effects to razorback sucker reproduction and recruitment in Lake Mead that are not adequately addressed in the DEIS.

29 | Page S-13, S.3.10.

It should be noted that power contract renewals will have an effect on the amount of power generation lost and the amount of mitigation needed. Power generation is dependent upon the available water and is subservient to it.

22a: The probabilities of surplus water for the Lower Division states are shown on Tables 3.4-1, 3.4-2, and 3.4-3.

22b: Tribal water allocations are included in the state apportionments. If a Tribe is not using part of its water allocation, the unused part is available for other users within the state.

23: A surplus for Mexico is only made under flood control conditions.

24: Comment noted. Flow variations up to the level of damaging flows are inherent in the analysis of habitat along the river, as analyzed in this FEIS.

25: The analysis recognized that fluctuations anticipated for the action alternatives are within historical ranges under which native species have diminished in the reservoirs. Populations of non-native sportfish species have, in general, become well established in the reservoirs, and the interim surplus criteria alternatives are not expected to result in any change to this trend.

26: The summary has been changed to include the observation that new habitats could be colonized by other species, in particular non-native weedy species. This is also discussed in Section 3.8 in the Environmental Consequences subsection.

27: The following statement has been added to the FEIS "In addition, fluctuations in water levels may potentially disrupt nesting of Yuma clapper rail and California black rail".

28: Revisions were made to Sections 3.8.2.3.3 and 3.8.2.3.3.5

29: This analysis does not make any assumptions related to contract renewals. However, it is possible that Western Area Power Administration would only make contract commitments when the current contracts terminate based on the foreseeable amounts of capacity and energy during the next contract term.

6

30 Page S-15, S.4.3.
It might be helpful for readers to mention here that the models are not predictive, and thus the actual costs and benefits realized are not known. An explanation of the increased opportunities for more efficient use of river water supplies is also appropriate, since no real conservation program that would free up river water for other beneficial uses is proposed in the plans.

31 Page S-16, S.4.4.
A statement on the need for California to show sufficient progress in meeting the 4.4 Plan as essential to the continuation of use of interim surplus criteria should be included here.

Chapter 1: Introduction and Background

32 Page 1-1, 1.1
Please cite the source of the management objectives provided in the 2nd paragraph.

33 Page 1-3, 1.1.2
Paragraph 2: Please include information on how many surplus years have been declared to date.

34 Page 1-3, 1.1.3
paragraph 1: Please note that the LROC is provided in Attachment A. Also, please include here that the reason why the current surplus criteria are inadequate is because of California's need for extra water while the 4.4 Plan is implemented.

35 paragraph 2: Please explain whether Arizona or Nevada can get flood surplus water (or indeed, any surplus water), if they are not already using their entire normal allocation.

36 Page 1-4, 1.1.4
please explain more fully how and when Mexico can obtain the 200,000 af of water under the existing conditions. Do all potential U.S. uses have to be met first?

37 Page 1-8, 1.3.1
paragraph 1: Although it is noted in item 7 on page 1-9, please explain here why the Gila River inflow is not counted as Colorado River water. This section is somewhat confusing to the reader on the issue of what water counts and what does not.

38 Page 1-12, 1.3.2.2.1
paragraph 1: In the depletion schedules, the Upper Basin depletions reach approximately 5.2 million af. This paragraph indicates a use of 6 maf. Please address this discrepancy.

30: Reclamation believes that the current discussion in this section is adequate.

31: As discussed in Section S.4.4, continuation of interim surplus criteria would be at the discretion of the Secretary. The Secretary's decision to continue or terminate interim surplus criteria would be based on a number of factors which may include California's progress in meeting the goals of the California Colorado River Water Use Plan.

32: See Table 1-1, "Documents Included in the Law of the River" for the complete reference. The specific documents to note as sources are: The Boulder Canyon Project Act of 1928, the 1964 Supreme Court Decree in Arizona v. California, and the Colorado River Basin Project Act of 1968, the Long Range Operating Criteria of 1970, and 43 CFR 417, "Procedural Methods for Implementing Colorado River Water Conservation Measures with Lower Basin Contractors and Others."

33: Section 1.3.4.1 provides data on how many surplus years have been determined.

34: See response to Comment 57-5. Currently, there is no specific surplus criteria. The surplus determination is made annually using the Annual Operating Plan process and dynamic factors. This does not allow the Lower Division States the ability to plan their internal water management as well as they might.

35: Under the terms of the Decree, when a Lower Division State needs more than its apportionment of consumptive use, the Secretary may make unused apportionment from another state available to it. If the total Lower Division consumptive uses do not exceed 7.5 maf, surplus water is not needed by the Lower Division States. Surplus water may be made available to entities in Arizona, California and Nevada who have entered into surplus water contracts with the Secretary. Surplus water, when made available, is shared as specified in the Decree--50 percent for use in California, 46 percent for use in Arizona and 4 percent for use in Nevada. Unused surplus water by one state may also be made available for use in another state.

36: Section 3.3.3.3, General Modeling Assumptions describes the assumptions made in regards to when deliveries of Treaty surplus are available to Mexico.

37: We have revised paragraph 1.3.1 in the FEIS to make this clarification.

38: The discrepancy is due to the fact that the depletion schedule in Attachment J of the DEIS does not account for evaporation from Upper Basin storage units. This evaporation is shared by the Upper Basin States and should be accounted for as an Upper Basin depletion. After allowing for evaporation, the projected Upper Basin depletions will be very close to 6.0 maf in year 2050. We have updated Attachment K in the FEIS to show a column for evaporation from Upper Basin storage units.

7

39 Page 1-12, 1.3.2.2.2
paragraph 2: Is it appropriate here to note how much of the state allocations are not being used (this would include Tribal Rights) that is currently being used by California, and how that amount of water should be first considered before any surplus is provided?

40 Page 1-14, 1.3.2.2.2
paragraph 1: Could a reference be made here to where the listing of PPRs and amounts is given in the DEIS?

41 Page 1-14, 1.3.2.2.3
paragraph 1: In the event of Gila River flows, are normal deliveries to Mexico suspended, under the concept that they can take their apportionment out of the excess water in the river?

42 Page 1-15, 1.3.3
paragraph 2: Please describe the type of NEPA and ESA compliance done for the LROC reviews and modifications.

43 Page 1-15, 1.3.4.1
paragraph 2: The Secretary retains the discretion to give unused allocation to another State. Is there any situation where he would not give the water to a potential beneficial use? For example, if reservoir levels were depressed by several years of drought? The contracts for such use are always temporary, are they not?

44 paragraph 3: Can a State that is not using its whole allocation get any surplus water under the present criteria or any of the potential interim surplus criteria?

45 Page 1-16, 1.3.5
paragraph 1: This paragraph is confusing. We suggest the storage amounts for Mead and Powell be specifically mentioned here instead of in the 2nd paragraph. If Lake Powell also contains upper and lower basin storage, that should be broken out.

46 Page 1-18, Table 1-2
Please note where the AAC contribution mentioned in the preceding paragraph is included in this Table. How does the AAC contribute to Mexico deliveries?

47 cont'd below Page 1-19, 1.3.6
paragraph 3: The issue of how much space in Lake Mead is dedicated to flood storage is not completely clear. The 1.5 maf of space for rainfall floods is clear, however, the amount of space needed for snowmelt is not provided. The total storage space needed is defined on page 1-20, but it is still unclear how much is needed in Mead. If this space requirement is flexible based on the amount of storage in other reservoirs, the amount of snowpack predicted, or other factors, these should be provided in the explanation. Perhaps a table of storage space provided in Mead over time would be helpful. Since the availability of flood storage space is an important factor in

39: Consumptive use of Colorado River water in Arizona reported in the Article V Decree accounting records was 2,853.9 kaf in calendar year 1997. Annual consumptive use in Arizona has been less than 2.8 maf in calendar years 1998 (2,566.7 kaf) and 1999 (2,728.0 kaf), and has been projected to be about 2.7 maf for 2000. Consumptive use of Colorado River water in Nevada is projected to exceed that state's 300 kaf apportionment during calendar year 2000. To the extent that all water apportioned to any Lower Division state is not used in that state during any year, the Secretary may release that unused apportionment water under Article II (B) (6) of the Decree for consumptive use in another Lower Division state. Any unused apportionment so released for use in another state will be accounted for as such, effectively reducing a state's use of surplus water.

40: The listing of PPRs and amounts is not in this FEIS but may be found in the supplemental Decree in Arizona v. California, entered by the United States Supreme Court on January 9, 1979 (439 U.S. 419).

41: In the event that the Gila River flows, normal deliveries to Mexico are not suspended. Any Gila River water that flows into the Colorado River becomes Colorado River System water that can be delivered to Mexico in satisfaction of the Mexican Water Treaty. If any Gila River flows result in more water being delivered to Mexico than Mexico scheduled, such excess deliveries do not count against the quantity of water delivered under the Treaty.

42: No NEPA or ESA compliance is required for ongoing operations, such as the LROC reviews under the criteria. However, a categorical exclusion checklist, dated October 31, 1997, was completed for the most recent LROC review that was initiated on August 14, 1996. In the event a review of the LROC identifies a need for a revision of the LROC, appropriate environmental compliance will be completed.

43: Article II(B)(6) of the Decree does not preclude the Secretary from releasing a Lower Division State's unused apportionment for consumptive use in the other Lower Division States. This article of the Decree further stipulates that the users of another state's unused apportionment do not accrue rights to repeated use of this water. This means the Secretary has discretion as to whether to release this water. The Secretary will consider many factors, including but not limited to current and projected reservoir storage, hydrologic conditions, and requests for water deliveries for beneficial use in determining whether to release a state's unused apportionment for use in another state. Section 5 of the Boulder Canyon Project Act requires contracts for delivery of Colorado River water to be for permanent service. Although a Colorado River water delivery contract is for permanent service, unused apportionment is available only when a state does not use all its apportionment and the Secretary releases that water for consumption in another state.

44: During a surplus year, an individual entitlement holder's schedule, diversion, and use of Colorado River water may include both a basic entitlement and surplus water. At the end of the year, the total consumptive use in the entitlement holder's state that year may be less than the apportionment that otherwise would have been available for use in that state in a normal year (basic apportionment). Therefore, even though Colorado River water may be scheduled, diverted, and used as surplus by individual entitlement holders, when Reclamation compiles the annual Article V Decree accounting records after the end of the year, Reclamation would account for this water as basic apportionment. Reclamation accounts for all water use in a Lower Division State as basic apportionment until the consumptive use in that state equals the basic apportionment for that state. This method of accounting is possible because any Colorado River water not used by an entitlement holder in any year passes to another entitlement holder in that state through existing contracts under the water-use priority system for that state.

45: We have modified the section for clarification. Section 1.3.5 describes the facilities on the Colorado River system and their respective storages, not the allocation of water to the Upper and Lower Divisions.

46: A portion of the water delivered to Mexico at the NIB is diverted in to the All American Canal and is delivered through the Pilot Knob and Siphon Drop powerplants into the Colorado River above the NIB.

47 cont'd | the analysis, this additional information would be useful to the reader. Also, if there is flexibility on where the water is stored, this could provide a method to prevent Mead elevations from declining as much if flood storage was available upstream and Mead allowed to stay at a higher elevation.

47: The paragraph has been modified for clarification. For more detail regarding flood control releases, we would refer you to the COE Water Control Manual for Hoover Dam, Lake Mead.

48 | Page 1-20, 1.3.6
paragraph 3: Please describe the relationship between rainfall and snowmelt storage space in Lake Mead.

48: Clarification has been made in Section 1.3.6.

49 | paragraph 4: Since other parts of the DEIS evaluate the effects of having 40,000 cubic feet per second flows, and we know that there are portions of the channel that cannot safely pass those flows, please discuss how the floodway program will be implemented to provide for such capacity.

49: Details of the responsibility of the various federal agencies is outlined in the "Final Report of the Secretary of the Interior to the Congress of the United States on the Colorado River Floodway Protection Act", dated October 1992. Some of the major implementation methods have been the incorporation of the floodway maps into the National Flood Insurance Program and the Department ensuring that leases and uses of federal lands adjacent to the river are consistent with the operation and maintenance of the floodway.

50 | Page 1-21, 1.4
1.4.1: There is no extant NEPA or ESA on this action. We still have concerns about the lack of integration in this DEIS of portions of the 4.4 Plan that require the surplus criteria to be in place. That the section 7 consultation on the interim surplus criteria will also include portions of the 4.4 Plan indicates the degree of linkage between these actions.

50: See response to Comment 13-5.

51 | Page 1-23, 1.4
1.4.3: As noted in the summary, reasonable and prudent alternatives are mandatory, and do not qualify as voluntary conservation actions.

51: Comment noted.

52 | Page 1-26, 1.4
1.4.4: The 2nd sentence of the 2nd paragraph addressing surplus criteria in the 1997 BCO is out of place in this paragraph. In the 4th paragraph, it should be noted that non-Federal partners in the LCRMSCP will obtain ESA coverage along with the Federal partners.

52: The text has been revised as noted.

Chapter 2: Description of Alternatives

53 | Page 2-1, 2-2-1-1
paragraph 2: Are the total runoff figures for the 70R and 75R based on runoff in the entire Colorado River basin? If so, perhaps it would be helpful to include the average runoff amount for reference purposes. Additional information on why the 75R and not the Flood Control alternative was selected to represent the baseline is needed here. It is important to be clear on what method was used to determine if surpluses in the past did or did not exist.

53: The "R" strategies are based on the runoff in the Upper Basin, measured at Lees Ferry, which is described in Section 3.3. Please See the response to Comment 57-11 regarding the selection of the 70R strategy.

54 | Page 2-2, 2.2.1.2
The "R" strategy is based on the yearly availability of storage space. Is the "P" strategy based on a yearly Lake Mead storage, or is it computed using more than one year to project the risk of shortage?

54: The "P" strategy is computed using more than one year to project the risk of shortage. See Section 2.2.13 for additional information.

9

55 Page 2-2, 2.2.1.4
If the Flood Control Strategy is what was used to determine surpluses in 1998-2000, then why was the 75R chosen as the baseline and no-action alternative? Also, how does the Flood Control Alternative differ, if at all, from the criteria used in 1998-2000?

56 Page 2-3, 2.2.2
paragraph 1: What is a "conjunctive use program?" This section should also look at why a program that only provided enough extra water to meet California's needs after all other available sources had been tapped is not considered in this DEIS. The California alternative does not have this direction.

57 Page 2-3, 2.2.3
paragraph 2: Although the increase in water deliveries to Mexico is not in the purpose and need of the interim surplus criteria, other features of the Pacific Institute proposal do meet the purpose and need and should be reviewed for how they would meet the needs of California.

58 Page 2-4, 2.2.4
paragraph 3: If the DEIS does not contain the full complement of items in the California and Six States alternatives, how can a decision be made on implementing the entire plan from the analysis in the DEIS? What actually is being covered, and how does the lack of coverage for other parts of the alternatives affect the analysis? Please explain more fully.

59 Page 2-4, 2.2.5
paragraph 1: The designation of a surplus condition under the no action and baseline condition is not less predictable or more uncertain than under the more liberal alternatives. The probability of a surplus being declared is less, because the criteria under these two alternatives are more conservative in retaining water in Lake Mead. The same information used to determine water levels in the reservoir over time apply to all alternatives. The more liberal alternatives provide for a higher probability that the analysis will enable a surplus to be declared over the no action and baseline condition.

60 Page 2-5, 2.2.5
paragraph 2: Please clarify why the 75R was selected as the baseline condition and not the Flood Control criteria actually used in 1998-2000 or the 70R used in planning. Use of the more liberal 75R to represent the baseline when it was not used as such is inappropriate. The discussion here of the choices made needs clarification.

61 Page 2-5, 2.3
paragraph 1: Do we include in the alternatives a written policy on exactly what California has to accomplish each year or set of years in order to justify the continuation of interim surplus criteria?

62 cont'd below paragraph 2: Flood Control is an alternative for discussion even though it may actually be the no action alternative, and 75R, which is not the actual baseline, is not an alternative. This

55: See the response to Comment 57-11 regarding the selection of the 70R strategy as the baseline. The determination of surplus conditions under the Flood Control Alternative would be the same procedure as was used in 1998-2000.

56: A conjunctive use is a state authorized program based on the use of a rechargeable groundwater aquifer to supplement surface water supply during periods of shortage. Groundwater pumped at such times would be replaced by artificial recharge when recharge water is available. See the response to Comment 57-8 regarding the formulation of an alternative to meet only California's needs.

57: See the response to Comment 11-6 and 11-8.

58: The Six States and California Alternatives are derived from the triggers and other operational provisions described in the respective proposals from the states, but the alternatives evaluated do not necessarily contain all the provisions of those proposals. Thus what is actually covered and proposed for implementation is the specific provisions of the alternatives described in Chapter 2 and in the detailed Guidelines in Attachment I. The operational modeling results, expressed in terms of river flows, reservoir levels, and the associated environmental impacts for each alternative are unique to the specific provisions of each alternative.

59: While it is true that the alternatives having lower trigger elevations than the baseline increase the probability of surplus water determinations during the interim period, the predictability aspect is critical to the integrated management of available water resources by the Lower Division States. Each of the Lower Division States currently manages surface and groundwater sources to meet its water delivery commitments. The establishment of triggering elevations on Lake Mead or flood control rules as the criteria for determining surplus water availability would enable water planners of the Basin States to forecast Colorado River water availability in advance with a reasonable degree of certainty and thereby avoid unpredictable water supply shortfalls that could result from year-to-year determinations under the AOP process.

60: Section 2.2.5 has been revised.

61: Please see response to Comment 33-3.

62: Section 2.3 has been revised for clarification.

10

62 cont'd | issue should be clarified. Also, exactly what method of surplus determination that will be used in 2016 and beyond should be clearly stated here.

63 | Page 2-6, 2.3.1.1
In the last sentence of this paragraph, please add the word "only" between "would" and "be." Since the 75R is a conservative plan, surpluses would only be achieved when lake levels are very high.

64 | Page 2-6, 2.3.1.2
The data set of past inflows used to run the 75R models should be the same as for the other models. The first sentence of this paragraph implies otherwise. Although there is no trigger elevation because the yearly storage need is variable (due to projected inflows), is there some elevation below which water would not be removed? Are the 1194 and 1196 feet elevations minimums that would not be compromised? Is there likely to always be enough water in the system when this criteria is met to meet all the States desired depletions? How does Mexico qualify for its 200,000 af under this alternative?

65 | Page 2-7, 2.3.2.1
The baseline/no action alternative can declare a surplus in any month through to the end of the water year. Does the Flood Control alternative operate like this, or is it like the other alternatives that determine a surplus in January? Should there be a 5 year review associated with this alternative?

66 | Page 2-8, 2.3.2.2
paragraph 1: Where was the 1211 elevation figure derived from? This is less than the 1.5 maf flood pool defined earlier. Is this the average elevation needed for snowmelt flood control? Should there be a 5 year review associated with this alternative?

67 | Page 2-9, 2.3.3.2
paragraph 1: The tier lines on the Six States alternative do not increase over time to account for increased future depletions from the system. How does this change the effects from those that would be seen in the 75R or California alternatives where there is an increase? We also suggest that the section provide brief information on the allowed uses of water in each tier without having to reference Attachment G. The amount of water generated should also be mentioned.

68 | Page 2-10, 2.3.3.2.1
paragraph 2: Why did the modeling not use the 70R trigger called for in the alternative? If this alternative was selected, would this change be made to the alternative description? How does this change the results of the analysis that might favor or dis-favor the alternative?

69 | Page 2-11, 2.3.3.2.4
How would Mexico receive surplus water under this alternative?

63: The change has been made.

64: The same runoff data is used for the Baseline and all the alternatives. This point was clarified in the section cited. The elevations of the triggering line during the interim period are based on a statistical analysis of required reservoir space for runoff in relation to the cited percentage of runoff (i.e., 70R). If a surplus is determined based on that line, it is possible for the level of Lake Mead to go below the triggering line, depending on actual runoff conditions in the year. In as much as the baseline triggering elevations for surplus water determination would involve a relatively full condition of Lake Mead, there would be sufficient water to meet the States' desired depletions. Mexico would receive its additional apportionment of 200,000 acre-feet in years when flood control releases were necessary. This would occur when Lake Mead levels were high enough to invoke the flood control operating rules (i.e., the Lake Mead levels indicated by the average Flood control release trigger shown on Figure 2-1).

65: A surplus may be determined in any month for any alternative due to flood control 70R and the other surplus alternatives determine surplus at the first of the year. See Section 1.1.1 for information regarding the 5-year review of the interim surplus criteria.

66: A five-year review is included in this alternative.

67: See Section 2.3.2.2 for information regarding the 1211 elevation. See Figure 3.3-10 for information regarding the 1.5 maf flood pool.

68: See response to Comment 37-8.

69: Under the Six States Alternative, as under all alternatives, Mexico would receive its additional apportionment of 200,000 acre-feet in years when flood control releases were necessary from Lake Mead.

11

70 Page 2-11, 2.3.4.1
If the trigger elevations are allowed to be revisited every 5 years, could they be made more liberal (to allow for additional surplus opportunity) or only more conservative? If more liberal, how will environmental compliance be accomplished for any additional impacts?

71 Page 2-12, Figure 2-4
Which tier 3 would be implemented if this alternative is selected? The one in the DEIS or the original California one?

72 Page 2-13, 2.3.4.2.4
How would Mexico receive surplus water under this alternative?

73 Page 2-16, Table 2-1
In the 2nd paragraph under Lake Powell effects, should the 3838 figure be 3638?

74 Throughout the table, the words "similar to" describe effects among alternatives. In a summary table this is acceptable, but the full text discussions should be more specific.

Chapter 3: Affected Environment and Environmental Consequences

3.1. Introduction

75 Page 3.1-2, 3.1.3
As stated previously, the no action or baseline condition lacks probability, not predictability. The criteria that were used in 1998-2000 to determine surplus should remain the no action alternative and be the criteria post 2015.

3.2. Potentially Affected Area

76 Page 3.2-1, 3.2
The effects of providing for interim surplus water extend beyond the Colorado River corridor. This water will be used to facilitate land development and provide a hedge against future shortages that could influence how that development occurs. Most of these developments are not speculative. Even if there are no new developments that could be considered, the presence of this water will enable the continuation of existing development plans. This is an effect that needs additional discussion. The presence of completed Habitat Conservation Plans for some of the development areas should be mentioned, as should be the lack of such plans in other areas.

77 Page 3.2-4, 3.2.1.4
This reach of the river is not included in many of the subsequent analyses and it should be so included. Please make sure the effects are discussed in the document.

70: The trigger elevations could move up or down. Appropriate environmental compliance would be performed.

71: If the California Alternative were selected, the tiers described in Chapter 2 of the FEIS would be implemented.

72: See response to Comment 57-69.

73: Yes. A correction has been made.

74: Comment noted.

75: The Secretary currently considers a number of factors consistent with the Long Range Operating Criteria to determine, on an annual basis, whether or not surplus conditions exist in the Lower Basin. This process (the No Action Alternative for the purpose of the Interim Surplus Criteria EIS) provides less certainty with regard to surplus determinations than the action alternatives under consideration. See FEIS Section 2.2.5 for information regarding the baseline used for analysis in the FEIS, as well as response to comment 11-9 and 57-5 for additional information.

76: Effects from the use of Colorado River water outside of the river corridor is beyond the scope of analysis necessary to determine the potential effects of interim surplus criteria. Also, see response to Comment 56-4.

77: See response to Comment 67-12.

12

3.3: River System Operations

78 General Comments: The reservoir operations section is much clearer and more informative than the river reach sections. The latter should be reviewed and rewritten to provide for greater clarity and understanding for the reader.

Page 3.3-4, 3.3.1.2

79 The discussion of storage space needed in Lake Mead for rainfall and snowmelt is not clear from this discussion. The percentage or actual space that has been made available in Mead over at least the time period covered by the current flood control operations criteria should be provided. A specific figure is given for Lake Powell in the preceding section. Since the normal space building releases are less than those needed for water users, how does Lake Mead empty the required space in accordance with the schedule? Since Lake Mead water levels are highest in December and January and lowest in July, how does this relate to the storage required in Table 3.3.2?

Page 3.3-8, 3.3.3.2

80 paragraph 2: This is confusing as far as Mexico's flood surplus is concerned. Does the DEIS intend to say that regardless of the alternative under analysis, there has to be enough water in Lake Mead to trigger what would be the COE flood control requirements before Mexico would be able to get its 200,000 af? If that is the case, please explain how this could happen (would these years be part of the 90th percentile line, or somewhere else)?

Page 3.3-9, 3.3.3.3

81 Assumptions Common: The first two assumptions reinforce the need to look at how Lake Mead storage is determined under the requirements in Table 3.3.2. If available storage in the Upper Basin affects storage available in Lake Mead, and increased depletions from those reservoirs increase the available storage, what storage is needed in Mead? Further, if changes could be made to these storage criteria (does BOR have discretion?), could these be used to reduce or eliminate adverse effects to reservoir levels and flood flows resulting from the proposed action? Should this be an alternative?

82 The assumption of future Upper Basin depletions is questioned by the Service. At most, only some of these belong in the baseline and the rest are part of cumulative effects. No separate analysis for cumulative effects was run, and this should be clarified.

83 Assumptions Specific: Why does the Flood Control alternative not include the implementation of the 4.4 Plan? If the actual purpose and need of developing the interim surplus criteria is to provide water to implement the 4.4 Plan, then the Flood Control alternative does not meet the need. Please explain why this decision was made.

84 cont'd below Page 3.3-11, 3.3.3.5

paragraph 2: This is an extremely important paragraph and the concepts herein should be stressed earlier in the DEIS. The models are not predictive, nor are they probabilistic for actual

78: Additional explantion has been added to Section 3.3.4.5.

79: The US Army Corps of Engineers is responsible for developing the flood control operation plan for Hoover Dam and Lake Mead pursuant to 33 CFR 208.11. Please refer to these regulations for a more detailed description of the Corps flood control and space building operations. Specifically, space building releases can be as high as 29,000 cfs while releases to meet downstream demands are typically less than 20,000 cfs. Lake Mead is typically lower in the summer as increasing downstream demands are met. This should not be confused with the space requirement, which in effect sets an upper limit on the storage at Lake Mead.

80: Yes. This is the modeling assumption used for all alternatives and baseline. Flood control releases occur when the hydrologic inflow, combined with the storage in Lake Mead, results in releases (in excess of downstream demand) necessary to meet the flood control regulations. Flood control releases occur in approximately 35% of the traces in 2007 and in 22% in 2016, under baseline conditions (see Figure 3.16-1).

81: Reclamation does not have the authority to modify the system space requirements (Table 3.3.2). As described in Section 3.3.3.3 and Attachment J, a minimum space of 1.5 maf is required at Lake Mead for flood control.

82: See response to Comment No. 57-10.

83: In the FEIS, the Flood Control Alternative includes implementation of the California Colorado River Water Use Plan. See response to Comment No. 37-11 for additional discussion.

84: The referenced statement and paragraph is appropriately located under Section 3.3 - Modeling and Future Hydrology.

13

84 cont'd | future flows. It should be noted that they do not represent best or worst case futures, only that they are the past brought forward for use.

Page 3.3-12, 3.3.3.6

85 | paragraph 3: It should be noted here that the end of year elevations do not represent the lowest point for water levels over the year. As stated in various places in the DEIS, reservoir elevations vary monthly by 15-20 feet or more up to 75 feet over the course of a year. Especially for the 10th percentile figures, lake levels may go below critical levels over the course of normal operations. Lake elevations in Mead reach their lowest point in July, and are declining over the six months previous.

Page 3.3-13, 3.3.4

86 | Transit time through the reservoirs, especially at low reservoir elevations, is likely to increase. How this affects productivity is an issue that should be mentioned when this analysis is discussed.

Page 3.3-14, 3.3.4.1

87 | paragraph 2: More information on the "equalization" rules is needed somewhere in this document.

88 | paragraph 3: Why was the Shortage Protection alternative analyzed differently? Will the revised analysis in the FEIS be more liberal or more conservative in showing a surplus? If it is more conservative, as one assumes it would be since the existing did not protect at 80%, does this reduce the effects of this alternative? Since this is often the alternative with the highest effect, this is an important consideration.

Page 3.3-15, 3.3.4.2.2

89 | paragraph 1: When are Lake Powell water levels lowest?

Page 3.3-17, 3.3.4.2.3

90 | paragraph 1: This paragraph is very important to understanding the modeling. We suggest that the concepts of the traces as shown in Figure 3.3-5 be incorporated into the modeling discussion earlier in this chapter. It is important for the reader to understand that each trace has the same 85 values as the other traces, but each one starts with a different year and wraps through all other years.

91 cont'd below | paragraph 2: It might be useful to explain why the 90th percentile does not change over time while the 50th and 10th do. As with paragraph 1, above, it may be appropriate to have a section describing more fully what is happening in these graphs. An attachment might be the best place to put such an explanation, with example graphs.

85: The referenced statements are appropriately located in the second paragraph of Section 3.3.4.2.3 (for Lake Powell) and the second paragraph of Section 3.3.4.4.3 (for Lake Mead).

86: As noted in Section 3.3.3.3, lakes Mohave and Havasu will continue to be operated in accordance with their existing rule curves. As such, the operating range of the water surface elevations and transit times of these two lakes are not expected to be affected. Additionally, the potential increase in transit time of lakes Mead and Powell are unlikely to affect productivity.

87: This information has been added in Attachment J.

88: The Shortage Protection Alternative was not analyzed differently. The referenced paragraph provides an explanation of the derivation of the shortage protection lines, used in all of the alternatives and baseline to determine when shortages occur.

89: The first paragraph of DEIS Section 3.3.4.2.3 states that the elevation at the end of the calendar year is near the seasonal low. Typically, the lowest end-of-month elevation for a year occurs between December and March.

90: The referenced discussion on the 85 traces is also addressed earlier in the chapter in Section 3.3.3.5, third paragraph. "Trace" refers to the output of a particular simulation, where the assumed inflows were derived using the indexed sequential method.

91: The fourth paragraph of Section 3.3.4.2.3 (for Lake Powell) and the third paragraph of Section 3.3.4.4.3 (for Lake Mead) have been expanded to provide additional explanation on the trending tendency of the 90th, 50th and 10th percentile lines. Specifically, the 90th percentile Lake Powell elevation does not change over time, indicating that Lake Powell is essentially full for 10% of the traces in all years.

14

91 cont'd | As far as the results shown in this paragraph, and the figure, the important point is that the lake level declines over time, and the range of potential levels increases significantly on the lower ends, but not on the upper end. All water levels, high, low or moderate are temporary, and of course these do not reflect the within-year fluctuations.

92 | Page 3.3-18, 3.3.4.2.3
paragraph 2: All modeling for levels is done at the end of the year as shown in Figure 3.3-6. The 90th percentile is at approximately 3685 feet. This paragraph brings in a new figure (Figure 3.3-7) with a modeling point of July, when the water level is highest in Lake Powell. These two figures are not comparable and serve to confuse the reader. One modeling point should be chosen for these analyses. This applies to page 3.3-21, Table 3.3-5 and its explanation also.

92: The analysis of elevation 3695 ft msl is included to address the probability of Lake Powell filling each year. This would typically occur during June or July. For the FEIS, all analyses of Lake Powell elevations were changed to a common point (end-of-July).

93 | Page 3.3-19, 3.3.4.2.3
paragraph 2: What is the significance of elevation 3590 for Lake Powell. The minimum power generation level is 3490 feet, is that what you intended to look at? This applies to page 3.3-19, Figure 3.3-8 and page 3.3-21, Table 3.3-6 also.

93: For the DEIS, the Lake Powell water levels observed for the baseline and surplus alternatives did not fall below 3550 feet. An analysis of the frequency of Lake Powell water levels falling below 3590 feet was included in the DEIS to provide a bottom range for the observed water levels. For the FEIS, this analysis was replaced with an analysis of elevation 3612 feet, below threshold elevation for marina and boat ramps.

94 | Page 3.3-19, 3.3.4.2.4
paragraph 1: Water levels fluctuate between 100% of possible elevations, not between 80%. All water levels are temporary, not just those in the upper and lower 10%. Please revise this paragraph to express this.

94: This comment appears to be directed toward 3.3.4.2, 4th paragraph. 80% of the simulated end-of-July Lake Powell elevations lie between the 90th and 10th percentile lines.

95 | Page 3.3-23, 3.3.4.4.1
paragraph 3: Please note in this paragraph when Lake Mead reaches its minimum levels.

95: Section 3.3.4.4.3, paragraph 1, states that Lake Mead water level generally reaches its annual low in July.

96 | Page 3.3-25, Figure 3.3-12
The level for the 90th percentile appears to be close to the lower level for the 1.5 maf flood pool (1219.61 feet). What is the actual level for this percentile? Again, an explanation of why this percentile does not change would assist in understanding the modeling.

96: For the FEIS, the 90th percentile of the modeled Lake Mead water surface elevation monthly values ranged between 1215.19 feet msl in 2002 to 1210.67 feet msl in 2050.

97 | Page 3.3-26, 3.3.4.4.3
paragraph 1: The difference between the modeling effects and seasonal changes in elevation are well mentioned in this paragraph. This bringing together of more than just the raw results of the models should be used more throughout the document to assist the reader in understanding the implications of this. For example, because the lake levels are lower in July than when the modeling was done, there is a greater chance of breaching one or more of the target trigger elevations than may be accounted for in the analysis. The tiers discussed in the section on the alternatives could be violated over the course of the year by the fluctuation of the reservoir. Power generation is very important during the hot summer months, and that is an area that could be more affected than perhaps the models suggest.

97: Much of the analysis in the FEIS uses end of December elevations for Lake Mead and end of July elevations for Lake Powell. Reclamation agrees that probabilities of remaining above various water surface elevations would be different during times of the year other than discussed in the FEIS. However, differences between alternatives and baseline conditions would be similar.

98 | paragraph 3: Water levels fluctuate between 100% of possible elevations, not between 80%. All water levels are temporary, not just those in the upper and lower 10%. Please revise this paragraph to express this.

98: 80% of the modeled end-of-December Lake Mead elevations lie between the 90th and 10th percentile lines.

15

99 paragraph 6: What is the significance of the 1200 foot elevation? Because it is below the 90th percentile, it would be expected that there would be a greater than 10% probability of water levels being higher than it. What is the point of this discussion? Further, if there is a change in the percentages from 22% to 16%, this raises the question of why the 90% line still does not change over time.

100 Page 3.3-27, Figure 3.3-14
Please change the color pattern on the figure data lines to the same as used in the other figures.

101 Page 3.3-29, Figure 3.3-16
Why does this Figure use a different scale than 3.3-15? Since they are dealing with the same concept and are within the same range of values, please use the same scale.

102 Page 3.3.4.4.4
What is important to note is not only the decrease in probabilities that a certain level will be maintained, but also that it happens much sooner under the more liberal surplus alternatives. This actually increases the number of years of risk, which increases the opportunity to have it happen. This increase, as well as the numerical changes, should be documented in this section.

103 Page 3.3-31, Table 3.3-8
Please explain how the figures for 2050 rise for all but the no action alternative.

104 Page 3.3-32, 3.3.4.5
A general comment on this section is appropriate. The discussion of the modeling and analysis in this section is not as clear as it is in other sections, especially the previous one on lake elevations. We understand that this type of analysis can be difficult to put into comprehensible terms, but as this is critical to the understanding of the effects, we believe another effort should be made to revise this section.

105 paragraph 2: Please note in which tables this information appears. There are many tables and graphs in this section. It may also be useful for the reader if the seasonal differences in flow magnitudes are more fully explained.

106 Page 3.3-34, 3.3.4.5
paragraph 1: Please separate the portion of this paragraph dealing with the second type of analysis from the rest. It will be easier to locate. Since both of these use exceedence frequencies, please explain how they are different or what different results are highlighted. A form of exceedence frequency was used in the lake elevation portion of the analysis. How is this form different? At the least, the need to change to "less than or equal to" from "greater than or equal to" should be explained. This type of modeling may also benefit from having a longer explanation, with examples, in an attachment to the document. Further, because this is the method described first in the results, it should be mentioned first. Alternatively, the discussion of each method should be included with the needed results and explanation.

99: The 1,200 foot Lake Mead elevation represents the elevation where Lake Mead is essentially full and is also below the top of the raised spillway. This has been included in the FEIS. Figure 3.3-14 presents the percent of the traces that had elevations equal or higher than elevation 1,200. The 90th percentile line depicted on Figure 3.3-13 shows where the top decile of the modeled values lies. Both figures present specific statistics that are accurate and relevant.

100: The color pattern on Figure 3.3-14 has been changed as suggested.

101: The vertical scale is varied to focus the presentation of the results to the range of values observed under the respective modeled conditions.

102: Comment noted. The timing is clearly shown in Figures 3.3-14 through 3.3-16.

103: Table 3.3-8 provides a numeric summary of the data presented in Figure 3.3-14. Values in Table 3.3-8 all decrease between 2016 and 2050. Hydrologic fluctuations contribute to the minor variability of charted values near 2050 in Figure 3.3-14.

104: Additional explanation has been added to Section 3.3.and Section 3.4 with respect to the interpretation of the figures in these sections and the meaning of the analysis results.

105: Subsections 3.3.4.5.1 through 3.3.4.5.4 refer to individual tables and graphs. The paragraph discussed in the comment is a general description of the analysis in these subsections.

106: This paragraph has been divided into two, with the cumulative distribution function discussed first, in order to parallel subsequent text.

16

Page 3.3-34, 3.3.4.5.1

107 paragraph 2: Please provide a definition for "mean monthly flow" data in the Glossary. Is this the average flow per month, or the average total flow for month? It also might be useful in this section to expand on the statement that there are hourly, daily, weekly, monthly and seasonal changes in flows released, as well as attenuation in these changes downstream from the release points. It might also be useful to reiterate that the 400,000 af in change in point of diversion transfers are included in some alternative analyses and not in others. The justification for this should have already been made.

Pages 3.3-35 to 3.3- 36, Figures 3.3-18

108 At the scales used in these figures, it is difficult to assess any changes to flows that result from the different alternatives, except at a recognizable break point. Perhaps scales could be changed to allow the tracks to be seen more clearly.

Page 3.3-37, 3.3.4.5.1

109 paragraph 1: This paragraph is a prime example of where more information and analysis of the results of modeling should be provided to the reader. The numbers generated from the models should be provided. There is no defined connection that the high flows in the figures are flood flows, so the statements about the changes in flood flow releases does not appear to be supported. There should also be a discussion of where the magnitude of flood flows is shown, and how these do not decline even if there is a decrease in the flood probability.

110 Table 3.3-13 appears to be related to the second form of analysis, not the first since it contains more exceedence levels than mentioned were present in the text. This confuses the reader. There are other issues as well. This is where an understanding of what the "mean monthly flow" is essential. The other analysis looked at four months, none of which correspond to this. The highest flows shown here, the maximums, are significantly higher than anything shown in Figures 3.3-18a-d. There is no explanation of what the flows in the table mean, why minimum flows higher for the liberal alternatives than the baseline after 2015 when there are no surplus criteria, and why the maximum flows go up when flood releases have decreased due to lower lake elevations.

Page 3.3-38, 3.3.4.5.2

111 paragraph 1: Since the 4.4 Plan cannot be accomplished without the surplus criteria being in place, the argument in this paragraph is not supportable. Further, this question should have been addressed much earlier in the DEIS.

112 paragraph 3: The Flood Control Alternative should be modeled as are the Six States, California and Shortage Protection alternatives if is to be considered a valid alternative for the purpose and need of the action.

Pages 3.3-39 to 3.3-40, Figures 33.19a-d

113 We have the same comments on these figures, and the analysis in the text that we had for the preceding section on the Hoover to Parker reach.

107: A definition for the term "mean monthly flow" has been added to the glossary. In the FEIS, all alternatives included the tranfers.

108: There is relatively little difference in the magnitude (Y-axis) of the mean monthly flow values and excess flows under the baseline and surplus alternatives. Figure 3.3-18a through Figure 3.3-18d and the other similar figures depict this. There are some differences in the frequency (X-axis) of excess flows in the winter season as represented by January for modeled year 2015 as depicted by Figure 3.3-18a. However, the differences in the frequency (X-axis) of excess flows in the other seasons are minimal to none, as depicted by Figure 3.3-18b through Figure 3.3-18d. In the FEIS the size of the data markers have been reduced and the size of the graphs were increased.

109: Flows greater than 20,000 cfs are typically due to flood control relases, not downstream demands. This has been noted in Section 3.3.1.2 and 3.3.4.5.1.

110: The introductory text has been modified to include the additional percentiles (Section 3.3.4.5). The maximums may not occur during the four months shown in the figures. Hydrologic fluctuations contribute to the minor differences in the maximums.

111: Section 1.4.1 discusses the relation between the California Colorado River Water Use Plan and interim surplus criteria.

112: In the FEIS, the Flood Control Alternative includes implementation of the California Colorado River Water Use Plan. See response to Comment 37-11 for additional discussion.

113: See response to Comment No. 57-108.

17

114 Page 3.3-41, Table 3.3-6
This table should be 3.3-14, not 3.3-6. We have the same comments on this table, and the analysis, that we had for the preceding section in the Hoover to Parker reach.

Page 3.3-41, 3.3.4.5.3
paragraph 2: The Flood Control alternative should incorporate the 400,000 af in transfers from the 4.4 Plan. Also, the last sentence brings up the new issue of flows being within the range
115 of historic flows in this portion of the river without examining the change in likelihood of the flow occurring, or an increase in the number of years that flow could occur. There is also the effects to groundwater from these changes in the flows, and this could have significant effects to riparian vegetation in the floodplains. These are effects that were part of the lake elevation analysis, and should also be addressed here. This is another example of the lack of analysis provided by this document to enable the reader to understand the effects to the river area..

116 Pages 3.3-42 to 3.3-43, Figures 33.20a-d
We have the same comments on these figures, and the analysis in the text that we had for the preceding section on the Hoover to Parker reach.

117 Page 3.3-44, Table 3.3-15
We have the same comments on this table, and the analysis, that we had for the preceding section in the Hoover to Parker reach.

118 Page 3.3-44, 3.3.4.5.4
paragraph 2: From the figures, it would appear that the highest frequency for flood flows is under the Flood Control alternative, not the Shortage Protection.

119 Pages 3.3-45 to 3.3-46, Figures 33.21a-d
We have the same comments on these figures, and the analysis in the text that we had for the preceding section on the Hoover to Parker reach.

Page 3.3-47, 3.3.4.5.4
120 paragraph 1: While the frequency of flows to Mexico may be higher in the baseline condition until 2015, it is lower for liberal surplus alternatives during the same time period. This is because Mexico can only get a surplus when the extant flood control criteria kick in, a situation based on water levels being higher than the flood storage levels needed.

121 Table 3.3-16: We have the same comments on this table, and the analysis, that we had for the preceding section in the Hoover to Parker reach. Also, the explanation for the zero figures in
122 many of the columns does not make sense. If you have 10 af/month, how can it round down to zero? This is why an explanation of what mean monthly flows are would have been helpful earlier.

114: The numbering of Table 3.3-6 in section 3.3.4.5.2 has been changed to Table 3.3-14. Also, see response to Comment 57-110.

115: In the FEIS, the Flood Control Alternative was modeled using California intrastate transfers. See response to Comment 37-11 for additional discussion. The difference in flows between historical conditions and surplus alternatives is minimal, and does not warrant the analysis proposed.

116: Also, see response to Comment 57-108.

117: Also, see response to Comment 57-110.

118: Excess flows are expected to occur more frequently under the Flood Control Alternative than under the other alternatives. Subject paragraph has been modified to reflect this.

119: Also, see response to Comment 57-108.

120: Section 3.16 contains a more detailed discussion of flows entering Mexico.

121: Also, see response to Comment 57-108.

122: Analyzed flows were actually zero. The minimum 10 af/month (approximately 0.168 cfs) amount was added to keep the model and post-processing from yielding an error message if the algorithm or equation involved dividing by the river amount (i.e., you cannot divide by zero). The note has been removed to avoid confusion.

18

3.4: Water Supply

123 General Comment: This section also lacks an interconnected interpretation of results of the analysis of effects. Different sections are not integrated to provide an understanding of how the various results work together to provide the analysis. Issues such as likelihood of shortages are discussed in the water use projection process before the results of the analysis are presented. This section needs rewriting for clarity and usefulness to the reader.

124a Page 3.4-1, 3.4.2
paragraph 1: All future depletions should be considered as cumulative effects and not a part of the baseline. How much of the presently unused water is not covered by a valid water
124b service contract (Lower Basin only)?

125 Page 3.4-4, Figure 3.4-1
We assume that Arizona's (and in similar graphs, California's and Nevada's) projected use of surplus water past 2015 represents their desires and not any probability of that water being available.

126 Page 3.4-5, 3.4.3.2
paragraph 1: The information on CAP allocations falling is not presented in Figure 3.4-1. Why does CAP decline after 2020?

127 paragraph 2: We suggest that the surplus depletions be given as the amount over the 2.8 maf allocation. Saying the surplus depletions are, for example, 2.96 maf instead of 160,000 af implies that the surplus amount is 2.96 maf. Why does the first level shortage condition rise over time? Is this a result of the increased probability of shortages?

128 paragraph 4: Since the non-Indian agricultural CAP users are not at present pumping groundwater (since they have CAP available), groundwater levels should be stabilizing or rising. Stating that any future use would increase the overdraft does not take into account this fact, or the other management activities taking place in groundwater management areas.

129 Page 3.4-7, 3.4.3.3
paragraph 1: Earlier in the DEIS, it said that surplus conditions were declared in 1998-2000. This paragraph implies there were surpluses in 1996-97. More importantly, California was able to get the 800,000 af of water it needed to keep MWD's aqueduct full under the current surplus water criteria. If this is the case, and over the next 15 years the amount California needs to make up decreases due to implementation of the 4.4 Plan, why are additional, more liberal criteria needed at all? This also brings up why an alternative that just provides the necessary amount of water each year to keep MWD whole is not included in the DEIS.

130 cont'd below paragraph 2: California growth, as stated clearly here, is going to increase. In order for it to do so, water must be made available to support the growth. Even maintaining the existing rate

123: The DEIS and FEIS identified specific resources that could potentially be impacted by the implementation of the proposed interim surplus criteria. Additional explanation has been added to Section 3.3.and Section 3.4 with respect to the interpretation of the figures in these sections and the meaning of the analysis results. Sections presented in the FEIS adequately describe these resources; associated analyses adequately address the potential impacts.

124a: Reclamation does not agree with this comment. The baseline alternative approximated the expected conditions without the project (interim surplus criteria). The potential impact that may result from the proposed interim surplus criteria can only be attributed to the difference in conditions between the baseline and the respective surplus alternative.

124b: The state of Arizona is the only Lower Basin state that has apportionment water that is currently not covered by a service contract. However, the exact amount is currently under dispute.

125: Figures 3.4-1 through 3.4-4 depict the respective state/basin's projected Colorado River water demand schedules under normal, surplus and shortage conditions.

126: Additional language has been added to the seventh paragraph of Section 3.4.3.2.

127: The discussion centers on the full surplus schedule, not the amount over the normal schedule. The 1st level shortage schedule for Arizona has nothing to do with the probability of shortages. It is derived by subtracting the amount CAP would be shorted under a level 1 shortage form 2.8 maf.

128: Comment noted; the paragraph has been restated.

129: Comment noted; the paragraph has been restated. Surplus criteria were developed to cover a wider range of hydrologic conditions than those between 1996 and 2000. Also, surplus conditions will benefit all Lower Basin States, not just the Metropolitan Water District.

130: Please see Section 1.1.3 for a description of the purpose and need for this action.

130 cont'd of growth will take more and more water. Additional supplies from the Colorado River are not available except under surplus conditions, and beyond 2020, the likelihood for surplus decreases. There are issues of indirect effects and cumulative effects inherent in the statements in this paragraph that need to be addressed.

131 paragraph 3: As we have noted previously, the certainty of the determinations of a surplus being made are not changing because they are still based on inflows and outflows. What is changing is the probability one will be called because of the more liberal criteria.

132 paragraph 5: MWD can take 1.3 maf per year through the Colorado River aqueduct, and they want to maintain that amount at capacity into the future. They have an allocation of approximately 440,000 af and the 4.4 Plan water transfers will give them about 400,000 af to use. This still leaves about 460,000 af to find to keep the aqueduct full. Where do they plan to get that water from? Future surpluses beyond 2015? Additional transfers?

133 Page 3.4-8, Figure 3.4-2
In this Figure, California's surplus demand projection is above 5.2 maf until about 2005. Why does it decline over this period when the normal demand projection is also declining and one would expect that additional surplus would be needed to make up total demand. Since the 4.4 Plan will not be implemented by then, is it appropriate to show demand reduced 100% to the allocation level so early?

134 Page 3.4-9, 3.4.3.3
paragraph 2: Would the Coachella Groundwater Storage Program also use surplus water? If there would need to be "unused apportionment" created to provide for the future use of this water, this needs to be addressed in this document. This is another example of the difficulty in seeing the entire effect of the surplus criteria without the companion 4.4 Plan being included.

135 paragraph 5: When was the compliance for this demonstration program completed?

136 Page 3.4-10, 3.4.3.4
paragraph 4: Please separate the 212,000 af of surplus water from the 300,000 af of Nevada's allocation.

137 Page 3.4-11, 3.4.3.4
paragraph 1: Mention any groundwater storage initiatives in Arizona or Nevada that could be used to store surplus water for future uses.

138 Page 3.4-11, 3.4.3.5
The issue of where Upper Basin future depletions should be analyzed has not yet been resolved.

131: Please see Section 1.1.3 for description of the "Purpose and Need for Action."

132: Please see response to Comment 11-11 for information on California's Colorado River Water Use Plan.

133: The full surplus depletion schedule plotted in Figure 3.4-2 of the DEIS for California was incorrectly plotted. The actual California depletion schedule that was used in the water supply analysis is presented in Table G-4 in Attachment G of the DEIS. The Lower Basin states prepared and submitted revised depletion schedules for the FEIS. This revised schedules are presented in Attachment H of the FEIS.

134: Please see response to Comment 11-11 for information on California's Colorado River Water Use Plan.

135: The referenced project was a project undertaken by the CAP, SNWA and MWD. NEPA documentation was accomplished for the demonstration project (indirect recharge) by a CEC (LC-93-9) dated April 9, 1993, and amended by CEC (LC-95-10) dated March 30, 1995.

136: The full surplus schedule specifies the total amount of water to be delivered under full surplus water supply conditions. The delivery of limited surplus amounts are also possible. The amount above the normal depletion amount under limited or surplus water conditions is variable.

137: The State of Nevada has not provided specific details on initiatives or programs for groundwater banking in Arizona. Based on information available to Reclamation, the concept of Nevada-Arizona interstate banking appears to be highly feasible, although currently at a conceptual stage.

138: Please see response to Comment 57-10 for a discussion of Upper Basin depletions.

20

Page 3.4-13, 3.4.4

139 A general comment on this subsection is to make sure all line patterns are consistent throughout the figures, and many of the graphs are at a scale that makes reviewing differences between alternatives difficult.

140 paragraphs 3-4: The two methods of presenting the data appear to be similar to those used in the river reaches sections earlier in the DEIS. Is this correct? If so, comments referencing those methods will also hold true for this section. Further, there appears to be little integration of the results of the two methods in this section. The results are presented without suitable interpretation.

Page 3.4-14, 3.4.4.1.1

141 In Figure 3.4-5, Is 90th percentile line derived from the surplus depletion line in Figure 3.4-1? How can the 90th percentile line remain so high, and indeed, raise over time, if the amount of surplus available in the future declines due to Upper Basin depletions? Why does the median line show such a precipitous drop near 2045 when the graphs for Lake Mead do not reflect this type of decreased water availability. Is this a result of the steadily decreasing Mead levels finally triggering a change in the median? Is that why the 10th percentile line drops earlier? Why does the median and 10th percentile line match up after 2044?

Page 3.4-15

142 paragraph 1: As asked previously, why does the 90th percentile line increase and not decrease over time.

143 paragraph 2: Why does the 50th percentile line drop so precipitously after 2044?

Page 3.4-17, 3.4.4.1.1

144 Please provide more detail on the differences in effects between baseline and surplus alternatives in this section. The fact that decreases in probability occur earlier is as important as the level attained and this is not fully acknowledged here. This section should also allow for integration of the results of other modeling as appropriate with the findings here. That the percentile lines "coincide" with the proposed depletion lines should also be addressed here if it has not been earlier.

145 paragraph 5: In Table 3.4-1, the columns for Normal and Shortage years are clearly additive percentages. The Surplus percentages are a subset of the Normal year, correct? If so, is the Surplus percentage provided a percentage of the Normal years, or is it the percentage of Normal years in which a surplus is expected. For example, under baseline conditions in 2016 to 2050, Normal conditions occur in 70% of the 35 years and shortage in 30%. Is the surplus 26% of the 35 years (which would mean that normal years occurred in 44% of the 35 years), or is it 26% of 70%?

139: The scales and units used on each figure are clearly marked and readable. The vertical scale on various figures are varied to focus on the range of the data being presented. The line patterns on all figures have been reviewed and made consistent for the FEIS.

140: Additional explanation has been added to Section 3.3.and Section 3.4 with respect to the interpretation of the figures in these sections and the meaning of the analysis results.

141: This analysis first ranks the outcome for the 85 traces for each condition modeled. The 90th percentile line depicts the value of the upper limit of the bottom 90 percent of the modeled values (traces) in any given year. Another way to say this, is the values of 10 percent of the outcome (traces) in a given year will be equal to or greater than the value depicted by the 90th percentile line for that year. The median values are represented by the 50th percentile line. The median value represents the depletion amount where half of the values are above and half are below. On Figure 3.4-5 of the DEIS, the 50th and 10th percentile lines sometimes overlie each other. When this ocurs, the implication is that there is very little or no difference between the values in the bottom half of the ranked values (modeled outcome). This all relates to the distribution of the values in the outcome for each condition being modeled.

142: See response to Comment 57-141.

143: See response to Comment 57-141.

144: Additional explanation has been added to Section 3.3.and Section 3.4 with respect to the interpretation of the figures in these sections and the meaning of the analysis results.

145: The percentage values presented under the column heading labeled "Normal" in Table 3.4-1 and similar tables in Section 3.4, represent the total percentage of time that depletions under the noted conditions would be at or above the normal depletion schedule amount. The values presented under the column labeled "Surplus" represent the total percentage of time that depletions under the noted conditions would be above the normal depletion schedule amount. The values presented under the column labeled "Shortage" represent the total percentage of time that depletions under the noted conditions would be below the normal depletion schedule amount.

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146 Page 3.4-18, Figure 3.4-8
There should be some discussion of what this figure shows in the text. The scale of these is also such that they are hard to read. It is obviously related to Figure 3.4-5 and this should be acknowledged.

147 Page 3.4-19, 3.4.4.2
The assumption that under baseline condition California would have to live within its 4.4 maf allocation by 2004 (when Arizona and Nevada using their full apportionments) should also be part of the explanation under California depletion graphs earlier in this section.

148 Page 3.4-19, 3.4.4.2.1
Figure 3.4-9 has several issues of concern. First, the 90th percentile line is higher than the surplus depletion line that California says it wants into the future. If California is not diverting at that level, then how can 10% of the depletions be above it? Between 2000-04, California wants more water than the 90th percentile, so would this be when some of the 10% would occur?

149 Page 3.4-22, Figure 3.4-12
It is very interesting in that it clearly shows the benefits of having surplus to extend the amount of time California can continue to use above its 4.4 maf allocation.

150 Page 3.4-23, Table 3.4-2
Why are the percentage chances for surplus so much different between the three states?

151 Page 3.4-24, 3.4.4.3.1
Figure 3.4-13 has the same basic questions under Nevada as it does for Arizona and California.

152 Page 3.4-25, 3.4.4.3.1
paragraph 3: Why does the surplus probability vary so much between the States? Is it based on the depletion schedules?

153 Page 3.4-27
paragraph 2: Where in the document was Nevada's use of unallocated Arizona water in the first three years discussed?

154 Page 3.4-29, Table 3.4-3
Why is the surplus probability 91% under Nevada but not as high for California and Arizona?

155 Page 3.4-29, 3.4.4.5
paragraph 1: Why was the basis for modeling Mexico's flows at 1.515 maf not addressed earlier in the DEIS under the modeling assumptions?

146: Paragraphs 1 through 4 in Section 3.4.4.1.2 include the subject discussion.

147: Figures 3.4-9 through 3.4-12 present the outcome of the modeling results in terms of the frequency and magnitude of surplus condition water supplies available to California under the baseline and surplus alternatives. California has developed a Colorado River Water Use Plan (the "Plan"). The Plan is a framework by which programs, projects, actions, policies and other activities would be coordinated and cooperatively implemented allowing California to meet its Colorado River water needs within its basic apportionment in Normal years. See response to Comment 11-11 for additional information on California's Colorado River Water Use Plan.

148: See response to Comment 57-133.

149: Comment noted.

150: We assume that you are referring to differences between Tables 3.4-1, 3.4-2, and 3.4-3. There are a number of reasons for the differences. First, there were inconsistencies in surplus depletion schedules between alternatives in the DEIS. This has been corrected in the FEIS. Second, Arizona has not reached full use of its apportionment, and it was assumed that California would thus be able to use additional water. Third, there were typographical errors. These three tables have been modified in the FEIS.

151: Section 3.4.4.3.1 describes Figure 3.4-13. Also, please see the response to Comment No. 57-141.

152: See response to Comment 57-150.

153: Nevada currently uses all of the Colorado River water apportioned for use within the State of Nevada. Arizona's depletion schedule in the DEIS indicates that Arizona does not anticipate using its entire Colorado River water apportionment until 2005. During this period, the difference between Arizona's normal apportionment and the scheduled depletion is classified as unused apportionment water. This unused apportionment water is made available to the other Lower Division states if a demand for such water exists. Text discussing this use has been added to Section 3.4.3.2. In Attachment H of the FEIS under the discussion entitled "Normal depletion schedules with and without Calfiornia transfers" this text has been added explaining Arizona's unused apportionment.

154: The percentage values for Nevada under baseline conditions and the Flood Control Alternative in DEIS Table 3.4-3, Years 2001 to 2015, are incorrect. The correct values should have been 50 percent under baseline conditions and 52 percent under the Flood Control Alternative. This information will be updated for the FEIS using the new modeling output for the baseline and surplus alternatives.

155: This additional modeling detail has been added to the modeling assumptions listed under "Assumptions Common to Baseline and All Alternatives" in Section 3.3.3.3.

22

156 Page 3.4-30, Figure 3.4-17
Why does the 50th percentile line drop so quickly under the baseline condition, when the levels of Lake Mead remain high?

157 Page 3.4-32, 3.4.4.5.2
This section needs to explain more fully the change in probability for Mexico to obtain a surplus, and why the shortage line does not get lower. Shortage conditions for Arizona and Nevada are shown in the respective graphs for those states.

158 Page 3.4-34, Table 3.4-4
As in the other tables of this type, please provide more information in the text about the meaning of the changes in percentages. Are these surplus percentages percent of years or of the normal percentage? What does this change really mean to flows below Morelos Dam?

Water Quality

159 Page 3.5-1, 3.5.2.1
paragraph 1: The reason for the 2015 date should be noted here. It may be confused with the expiration date of the surplus criteria.

160 Page 3.5-6, 3.5.2.2.2
paragraph 6: It might be worth noting that there are no return flows to the Colorado River from the major depletions of water to MWD, CAP, IID and CVWD.

161 Page 3.5-7, 3.5.2.2.3
paragraph 4: Costs of implementing additional salinity controls due to any increases that result from the surplus criteria or the water transfers.

162 Page 3.5-8, 3.5.1.2
paragraph 1: The explanation in this paragraph is unclear. The 2nd sentence should end with "than under the baseline." The remaining explanation is difficult because the source of the numbers is not given, nor is the rationale fully developed.

163 Page 3.5-9, Table 3.5-1
Please explain why the Shortage Protection has a -3 under Imperial Dam when the other two liberal alternatives have +4 and +1 respectively? Why do these three figures differ?

164 Page 3.5-11, 3.5.2.3.6
paragraph 1: What about over the 2016-2050 time period?

165 paragraph 3: Are there any studies for these areas as were referenced in paragraph 2?

156: The probability of surplus water deliveries to the Lower Basin states and Mexico is highest in the early years due to the starting high reservoir conditions that were modeled. To a lesser extent, this is also affected by the increasing total basin depletions. It should be noted in the DEIS from Figure 3.3-13 that Lake Mead elevations decrease over time in all alternatives. Figure 3.4-30 is in reference to Mexico's modeled annual depletions under baseline conditions and shows Mexico's annual treaty depletion over time.

157: The effect of interim surplus criteria on the delivery of surplus flows to Mexico is best depicted by Figure 3.4-18 (for years 2001 to 2015) and Figure 3.4-19 (for years 2016 to 2050) in the DEIS. This information is also summarized in Table 3.4-4. The Colorado River water supply deliveries to Mexico never dropped below 1.5 maf under the modeled conditions and as such, the respective figures depict this.

158: See response to Comment 57-145. The FEIS results show a potential for a small reduction (3 to 6 percent) in the frequency of excess flows under the Basin States, Six States, California and Shortage Protection alternatives and a potential for a small increase (1 percent) in the frequency of flows under the Flood Control Alternative, when compared to the baseline conditions for year 2016.

159: The text has been revised in the FEIS to provide clarification.

160: Comment noted. However, Reclamation does not believe that this information would aid in understanding the flow system of the river at this point in the discussion.

161: Reclamation has considered this request; however, because modeling conducted for the FEIS indicated a general reduction in salinity under each of the alternatives it was determined that this information was not necessary. The effects of transfers associated with Secretarial Implementation Agreements will be considered under separate NEPA compliance.

162: The referenced paragraph has been revised for clarification.

163: Note that the information in Table 3.5-1 has been updated with modeling conducted for the FEIS.

164: Because of the uncertainty of the long-range salinity control projects, projections of future control projects that may be necessary to offset the effects of future water development beyond 2015 have not been made by the Forum. Note that modeling for the EIS considers only those salinity control programs currently in place.

165: Reclamation is not aware of any studies of damages in localized areas such as Laughlin.

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166 Page 3.5-16, 3.5.3.2.1
paragraph 1: What is the significance of elevation 1205?

167 Page 3.5-18, Table 3.5-5
This table should be placed closer to the beginning of this section for ease of understanding the dynamics of the reservoir.

168 Page 3.5-22, 3.5.3.3.1.2
New riparian development at the mouths of tributaries will use more water than at present, thus potentially reducing inflows even further. Water quality under this scenario may not improve as stated in the text.

169 Page 3.5-22, 3.5.3.3.2
This section is extremely important to the later discussions of effects to important resources and should be more fully explained and used in those discussions.

Riverflow Issues

170 This section needs to address more fully the effects to water surface and groundwater elevations below Hoover, Davis and Parker Dams that result from the interim surplus criteria combined with the water transfers from the 4.4 Plan. This lack of discussion does not allow for a full evaluation of the effects.

Page 3.6-4, Table 3.6-1

171 At least for the 2000-2015 period, it might be instructive to break the time period into 5 year increments to examine when the changes to probabilities do occur. If the largest drop is within a certain segment, then there may be greater potential for adverse effects to the beach building and maintenance program than may appear from the table data.

Page 3.6-6, Table 3.6-2

172 Please explain more fully the results posted in this table. What causes the decreased probability for the liberal alternatives? Is this the result of less equalization flow needs? Why is this table based on water year, not end of year data and does that have an effect on the results?

Page 3.6-6, 3.6.4.1

173 Flooding in the river below Hoover Dam include more than only high damaging flows. Any amount of flow over the minimum needed to meet downstream needs has an effect on the physical and biological character of the river ecosystem. Some of these effects are beneficial, some are not, but the changes to all flows that result from this project deserve equal consideration. This section needs to be revised to reflect that.

174 paragraph 2: This is the first mention of the Colorado River Floodway Protection Act and its requirements for maintaining certain floodway levels. This should be more fully explored in light of the reduction in flows foreseen under the proposed project.

166: Elevation 1,205 feet msl is the Hoover Dam spillway crest as identified in Table 3.5-3.

167: Comment noted. The table is located in the appropriate section.

168: Discussion in referenced paragraph has been revised to incorporate this information.

169: Note that additional information has been included in Section 3.5.3 and Reclamation believes that the information presented in the FEIS appropriately identifies the potential water quality effects of interim surplus criteria. Potential effects to important resources are also presented appropriately in other sections of the FEIS.

170: Section 3.6.4 presents analysis of the potential for high flows (based on defined flow thresholds) below Hoover Dam with reference to the potential for causing flood damage, and is not intended to describe the general effects of river flows on resources within the river corridor. As discussed previously, Section 3.8 of the FEIS has incorporated summary information from the BA for interim surplus criteria regarding potential effects from changes in flows on special-status species and their habitat between Hoover Dam and the SIB. Reclamation is also consulting with your agency on the effects of approving the water transfers proposed by California's Plan.

171: A plot of annual BHBF probabilities has been added to Section 3.6.2.

172: The decreased probability of 8.23 maf release years for the "liberal" alternatives is a result of their increased probability of surplus, which results in releases from Glen Canyon Dam in excess of 8.23 maf. Table 3.6.2 is based on water year because the commitment for low steady summer flow releases is governed by annual release volumes from Glen Canyon Dam, which are accounted for by water year under the provisions of the LROC. This has been noted in Section 3.6.2.

173: See response to Comment 57-170.

174: The Colorado River Floodway Protection Act addresses flooding from 40,000 cfs flow events or 1-in-100 year flow events (if greater than 40,000 cfs). It does not address smaller or more frequent events. Table 3.6-4 in the FEIS, Discharge Probabilities from Hoover, Davis and Parker Dam, shows the probabilities of various flow events, including 40,000 cfs, under each alternative.

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175 Page 3.6-7, 3.6.4.1.4
High groundwater in the Yuma area is the result of what level of flows? Please relate how this groundwater problem relates to normal and higher than normal flows. A discussion of how this will change over time would be appropriate.

176 Page 3.6-8, 3.6.4.2
In Table 3.6-3, is the figure for the Six States under Hoover Dam releases of 19,000 correct? It is lower than all the others in that line, which is different than for the other release levels.

177 This table, and the accompanying text, would be more valuable if it looked at flows that were below the damaging levels of the Hoover releases. It also would be more helpful if the data here were integrated with the probabilities of Mexico getting any surplus water in those years.

Aquatic Resources

178 Page 3.7-1, 3.7-1
This section is somewhat confusing. Is it to deal strictly with non-native/sport fish concerns or is it to also address native fish? Tighter organization and focus would help this section, as would reference to some of the studies on fluctuating reservoirs that have been done that discuss effects to fish and fish habitat.

179 Page 3.7-1, 3.7.2.2.1
Please place the discussion about the structure of Lake Powell in the previous section where similar attributes of Lake Mead were discussed.

180 Page 3.7-4, 3.7.2.2.2
There are no bonytail in Lake Mead. The discussion in paragraph 2 is not relevant to Lake Mead and should be deleted. Please bring this section into the same format as the one for Lake Powell.

181 Page 3.7-4, 3.7.2.2.3
The effects of fluctuating reservoir levels on fish populations has been widely researched. Centrarchids are affected by it, especially declines during the spawning season. Any effect to striped bass reproduction may be felt by the changes in relation of spawning areas to the length of time eggs need to float to appropriate areas. The arguments in this paragraph need supporting data to be provided.

182 cont'd below Page 3.7-5, 3.7.2.3
The analysis of effects to fish populations in the reservoirs needs to focus on the changes to physical habitats from the increase in fluctuations, the timing of fluctuations, underwater topography to assess shallow habitats at varying elevations and other factors. The effects to such things as thermal refuges for threadfin shad is also critical to the sport fishery. It is also

175: Threshold flows are shown in the two bullets included in Section 3.6.4.1.4. Section 3.3.4.5 and Attachment N of the DEIS provide additional comparison of river flows below Hoover Dam.

176: Values in Table 3.6.-4 (Table 3.6-3 in the DEIS) have been revised based on modeling performed for the FEIS.

177: Comment noted. This section is intended to address the potential for damaging flows, as discussed in the response to Comment 57-170. Developing a correlation between probabilities of damaging flows and surplus water delivery to Mexico is beyond the needs for evaluating potential effects on resources.

178: Section 3.7 addresses potential effects of interim surplus criteria on lake habitat in Lake Powell and Lake Mead for both native and non-native species, and also addresses potential effects on sport fisheries within and between the two reservoirs. Section 3.8.2.3.3 discusses potential effects on special-status fish species.

179: Discussion of Lake Powell habitat is located appropriately within the document.

180: Revisions have been made to Section 3.7.2.2.2 of the FEIS to discuss that razorback sucker is the only native species with a remnant population in Lake Mead.

181: Section 3.7.2.2.3 discusses the effects of fluctuating reservoir elevations on fish populations, and additional information has been included in the FEIS. It should be noted that although it is recognized that fluctuating water levels can affect fisheries, the alternatives under consideration are expected to result in fluctuations similar to baseline conditions. Historical conditions within Lake Powell and Lake Mead have resulted in those lakes being considered extremely popular striped bass fisheries that also support populations of largemouth bass, smallmouth bass, crappie, catfish, and carp. Both lakes have shown unprecedented natural reproduction and survival of striped bass.

182: The analysis in the EIS is presented to compare the potential effects under the alternatives with those under baseline conditions. Revisions have been made to Section 3.7.3.3.1 to clarify the discussion. It should be noted that modeling indicates that although some alternatives would have increased probabilities for lower reservoir elevations, fluctuations under the alternatives and baseline conditions would be similar. It is acknowledged that management practices being developed for native species indicate a recruitment window may exist if water levels are very low and then rise suddenly. Study of these management strategies is currently underway and will continue. Information on current management strategies can be found in the BA prepared for interim surplus criteria and Secretarial implementation agreements.

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182 cont'd | important to note that native fishes in new reservoirs may experience a recruitment window if water levels are very low and then raise suddenly. The discussion of these issues in the DEIS is not adequate to support your conclusions.

183 | Page 3.7-7, 3.7.3.2.2
This is the first example of where the lower Colorado River (below Hoover, Davis and Parker Dams) is not included in the analysis. Please correct this oversight.

184 | Page 3.7-7, 3.7.3.3.1
paragraph 2: The water level fluctuations have not been described as "gradual" in the DEIS. No discussion on the speed of fluctuations has been made. Changes of 15-20 feet per month may not be "gradual" in a biological sense. The statements made here require additional supporting information, including a discussion under the effects to lake elevation and river flow earlier in Chapter 3, of changes to the speed of elevational changes due to the surplus criteria.

185 | Page 3.7-8, 3.7.3.3.1
Please explain why selenium levels would not be affected. If Endrin or other toxic materials are entering the system via Las Vegas Wash, would not reduced levels of flow in Las Vegas Bay have an effect on its concentrations and dispersal?

186 | Page 3.7-8, 3.7.3.3.2
There is no discussion of the river below Hoover, Davis or Parker Dams. Please correct this oversight.

Special Status Species

187 | Page 3.8-1, 3.8-1
Why does this section not address species in the riverine sections below Hoover, Davis and Parker Dams? Please correct this oversight throughout this section.

188 | Page 3.8.5, 3.8.2.2.1.2
paragraph 2: Under declining water levels, beaches currently used may no longer be available, and new beaches in areas not presently desirable may be subject to heavy usage. The assumption made in this paragraph is not supported. Further declining water levels may change the depth to water or other factors supporting the milkvetch, contributing to the reduction or elimination of a population. Because the changes to elevation will be occurring over a year or set of years, there may not be sufficient time for the plant to regenerate a population at the new water line, or if it does, it may be more likely to be flooded out by any sudden increase from a wet year. The dynamics of this species, and the relation to reservoir levels are not fully analyzed in this section. This discussion holds true for the Grand Canyon evening primrose, Las Vegas bear poppy and sticky buckwheat as well as the Geyer's milkvetch.

183: The FEIS includes expanded and new discussions in appropriate sections of impacts to resources below Hoover Dam.

184: The 15 to 20-foot elevation changes described in the text occur over a year, not month-to-month. The rate of fluctuations would remain approximately the same with adoption of interim surplus criteria. Section 3.7.3.3.1 has been modified.

185: Studies are ongoing to determine effects of toxins on fish, with the premise that increased concentrations show increased effects, and to determine what limits need to be enforced. Section 3.5.3 discusses potential water quality effects associated with Las Vegas Wash and Lake Mead.

186: The FEIS considers the potential effects of increases in the temperature of water released from Hoover Dam under decreased reservoir elevations on the sport fishery within the river between Hoover Dam and Lake Mohave in Section 3.7.3. Reclamation has determined that fluctuations in flows below Hoover Dam to the SIB under the alternatives would be within the historical operating range of the river and would, therefore, not affect aquatic resources within this segment.

187: Section 3.8 of the FEIS addresses species below Hoover Dam, downstream to the SIB with Mexico.

188: This section is meant only to provide existing information. The analysis on how the changes in reservoir levels might impact these plant species is included in the Environmental Consequences section.

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189 Page 3.8-6, 3.8.2.2.2
There is no discussion of the river below Hoover, Davis or Parker Dams. Please correct this oversight.

189: See response for Comment 57-187.

190 paragraph 2: This paragraph, which references Table 3.8-2, is confusing. There are 19 species listed in the table; two of which are eliminated from the discussion because of a lack of records (which is incorrect if the lower river is appropriately added to the discussion), two others are eliminated for lack of effects, and five are in the Grand Canyon only and are covered under other consultations. This leaves 10 species. Please revise the paragraph to be more clear.

190: Paragraph has been modified in the FEIS for clarification.

191 Page 3.8-7, Table 3.8-2
Please reorganize this table by species groups, starting with invertebrates, then reptiles and amphibians, birds and mammals.

191: The table, and subsequent discussion of the species, has been reorganized as you suggested.

192 Page 3.8-8, 3.8.2.2.2.1
There is a considerable amount of general information on lakeside habitats on pages 3.8-8 through 3.8-10 that perhaps would be more appropriate under its own heading at the beginning of this section. Also, this section does not contain any information on the riverside habitats along the lower river and how they would be affected.

192: The discussion on lakeside habitat and riverside habitat in the lower canyon will be presented in separate sections in the FEIS in order to clarify these two distinct areas. No additional information will be added to the existing discussion on habitat in the lower canyon and potential changes in riverside and marsh habitat as it is adequately addressed.

193 Page 3.8-10, 3.8.2.2.2.1
paragraph 3: Clear and complete information on the formation and destruction of this important southwestern willow flycatcher habitat is essential to the analysis of the effects of this action. This section needs to provide more specifics on the elevations at which the habitat forms, the elevations at which it is dried out or inundated and the extent of this habitat at various new lake elevations. Why were models not run that focused on these lake elevations that created or destroyed flycatcher habitat?

193: The lakeside habitat has been organized under its own headings. Riverside habitat along the lower river has been added with reference to detailed discussions from the biological assessment (BA) prepared by Reclamation for the interim surplus criteria.

194 Page 3.8-11, 3.8.2.2.2.1
paragraph 1: The discussion of the formation of riparian habitats within the lower Grand Canyon requires the same level of background as the preceding discussion of the Lake Mead delta. Why do water elevations that benefit the delta not benefit the lower Canyon?

194: Additional information on water levels and development of riparian and marsh habitats in the Lake Mead Delta and Lower Grand Canyon has been added to the discussion of the FEIS. This information summarizes findings from the following Reclamation report: Willow Flycatcher Disturbances, Threats and Protective Management Along the Lower Virgin and Colorado Rivers - 1997 (Reclamation, 1998).

195 paragraph 3: Marshes and backwaters along the river below Hoover, Davis and Parker Dams will also be affected by the proposed action and should be discussed here and in subsequent paragraphs.

195: Additional information on marshes and backwaters along the Colorado River from below Hoover Dam to the SIB has been added. The discussion references findings from Reclamation's BA that examines potential effects of the implementation of the interim surplus criteria on these habitats.

196 Page 3.8-12, 3.8.2.2.1
paragraph 1: The last sentence does not appear to belong here.

196: The sentence has been reworded in the FEIS.

197 Page 3.8-13, 3.8.2.2.2.1.2
Please address the presence of these species in the lower river reaches below the dams.

197: See response to Comment 57-187.

27

198 Page 3.8-16, 3.8.2.2.2.1.2
paragraph 6: Is there a connection between lake elevation and breeding season for the flycatcher? The connection is for habitat formation, unless there is also a component at elevation 1192 and below to allow for saturated soils. Please clarify.

199 Page 3.8-17, 3.8.2.2.2.1.2
paragraph 2: The citation for Fitzpatrick 2000 is not in the literature cited. We are also unclear about sightings of Yuma clapper rails at the Lake Mead Delta. The reference we have is from McKernan for the Virgin River. Please clarify this point.

200 Page 3.8-18, 3.8.2.2.3
paragraph 1: Bonytail chub also eat small fish. The citation for NPS 1998 is not correctly attributed to National Park Service. Also, there are more adequate summaries of species accounts than are contained in this citation and we suggest they be used instead.

201 Page 3.8-19, 3.8.2.2.3
paragraph 1: The efforts on Lake Havasu are better referred to as an augmentation or repatriation.

202 paragraph 2: This section on critical habitat is incorrect. Critical habitat for the bonytail in the project area is from Hoover Dam to Davis Dam including Lake Mohave to its full pool elevation and Lake Havasu from Parker Dam to the northern border of the Havasu National Wildlife Refuge including Lake Havasu to its full pool elevation.

203 paragraph 3: Colorado pikeminnow were taken from Lake Mohave in the 1970's.

204 paragraph 5: Please include only those critical habitat areas that are within the project area.

205 Page 3.8-21, 3.8.2.2.3
paragraph 5: The critical habitat for the humpback chub in the project area is incorrect. The designation includes the Colorado River from Nautiloid Canyon to Granite Park in the Grand Canyon and the lower 8 miles of the Little Colorado River including the confluence with the Colorado.

206 paragraph 7: Please refer to razorback sucker populations in the lower Colorado River as well as those in the San Juan in this paragraph. Also mention the populations in Lake Havasu and in the Parker to Imperial reach.

207 Page 3.8-23, 3.8.2.3.1.1
Much of the information here is included in the preceding section and perhaps could be combined there.

198: Additional information on lake elevation and breeding season for the Southwestern willow flycatcher has been added to the FEIS. This information was summarized from information included in the BA discussed in previous responses.

199: According to information included in McKernan, 1999, individual Yuma clapper rails have been documented at the Virgin and Muddy Rivers including the Virgin River floodplain between Littlefield, AZ and the Virgin River Delta, NV, and at sites within the lower Grand Canyon. No additional information on possible sightings of Yuma clapper rail in the Lake Mead Delta is available.

200: Revisions have been made to the discussion of bonytail in the FEIS.

201: Section 3.8.2.2.3 has been revised to use the term "repatriate" instead of "reintroduce."

202: The locations of designation of critical habitat for all four fish species references the Federal Register notice (March 21, 1994), and occurrence of critical habitat in the analysis area is noted for each species.

203: This information has been noted in the FEIS.

204: See response to Comment 57-202 above.

205: See response to Comment 57-202 above. This information has been added to the FEIS.

206: This section has been modified to discuss that razorback sucker can be found in the lower Colorado River and Lake Havasu. Populations of razorback sucker within the San Juan River are outside of the area under consideration in the EIS.

207: Comment noted. However, Reclamation believes that the information is presented appropriately.

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208 Page 3.8-24, 3.8.2.3.1.2 through 3.8.2.3.1.5
These sections should be more detailed as to how these species would be affected by the alternatives, especially the differences between them.

209 Page 3.8-24, 3.8.2.3.2
The second part of this paragraph (beginning with "Additional special..." repeats information given previously that does not need to be repeated.

210 Page 3.8-25, 3.8.2.3.2.1
paragraph 2: Riparian and marsh habitats may also be eliminated by rising levels, or those levels that go too low and dry out the site. This section on baseline needs to focus more on the opportunity for habitats to exist at the expected fluctuations, than to deal in broad generalities. The differences between it and the alternatives cannot be evaluated without being more specific. This section also does not discuss the effects to the lower river. On a species level, California black rails are not tolerant of water level fluctuations and any increase in fluctuations would reduce the suitability of habitat for this species.

211 Page 3.8-25 and 26, 3.8.2.3.2.2 to 3.8.2.3.2.5
These sections should be more detailed as to how these species would be affected by the alternatives, especially the differences between them. The analysis is incomplete without this step The issue of longer periods of lower water elevations is very important to the habitat that support these species. The discussion for the southwestern willow flycatcher would especially benefit by including more details.

212 Page 3.8-27, 3.8.2.3.3
Please include a baseline section here as for the other special status species groups. It should also be noted here that the increase in fluctuations, and lower water levels, may in fact present an opportunity to examine the potential for native fish recruitment. Filling reservoirs may provide lower predator loads initially. Further, there is spawning and some natural recruitment at Lake Mead, and the effects to razorback sucker of changing the present operation should be part of this analysis.

213 Page 3.8-27, 3.8.2.3.3.1
Reintroduction of the bonytail to the Parker to Imperial Dam reach may be affected by the changes to that reach caused by the proposed action. Additionally, the bonytail in Lake Havasu may move upriver into the river reach below Davis Dam, that will also be affected by the changes in flow.

214 Page 3.8-28, 3.8.2.3.3.3
For flannelmouth suckers the presence of the population below Davis Dam should be mentioned in the analysis. They will be affected by the change in flows. Since there will not be much by way of higher lake elevations under the alternatives, the last sentence is unclear as to intent.

208: It should be noted that the analysis considers how species would be affected by changing system conditions that could occur under baseline conditions and each of the alternatives. With regard to potential effects on special-status species, the differences between the alternatives is primarily associated with changes in probabilities for certain conditions to occur. A more complete and detailed analysis would involve extensive study of each of these species and their population dynamics.

209: Comment noted. However, Reclamation believes that the information is presented appropriately.

210: Modeling of future conditions under baseline conditions and the alternatives indicates increased potential for declining water levels at Lake Mead. Although the rate of changed potential for surface elevation reductions varies among the alternatives compared to baseline conditions, significant differences in seasonal fluctuations are not expected (or indicated through system modeling). No research directly addressing various lake levels and resulting development of riparian and marsh habitat is available. Only general historical information is available and is associated with post-drought years followed by high water years. As a result, a general approach that includes potential effects on vegetation based on the predicted declines in water levels is presented.

211: Comment noted. Reclamation believes that the analysis presented adequately identifies the potential effects of the alternatives compared to baseline conditions.

212: The discussions for effects to fish species has been reformatted similar to that for the plant and wildlife species. Effects of the alternatives to razorback sucker in Lake Mead are analyzed.

213: Flows below Hoover Dam would be within historical ranges under baseline conditions and each of the alternatives, and no impacts to special-status species fish within this segment would occur as a result of interim surplus criteria.

214: Comment noted. See response to Comment 57-213. The last sentence has been clarified.

29

Page 3.8-28, 3.8.2.3.3.5

215 Effects to razorback sucker in Lake Mead and the lower Colorado River are not addressed in this section. There are some significant potential adverse effects to this species from the proposed action and its associated actions and they need to be discussed in the DEIS. This includes the effects to Lake Mead spawning habitats and success, backwater and main channel habitat losses in the lower river, and the effects of reductions in flood flows on habitats and other competing species. Why were models for Lake Mead elevations not run using spawning habitat elevations? Selection of any elevation appears possible and is done for recreation levels.

Recreation

216 This section also does not address the effects to recreation in the lower Colorado River reaches below Hoover, Davis and Parker Dams.

217 While the data presented in this section is not immediately comparable for use with special status species, several of the ways of presenting data could have been useful. For example, there are graphs that show the probabilities of various lake levels over time that are based on protection of recreational facilities. These types of graphs and the associated tables of probabilities would also be useful in evaluating the effects to important riparian and spawning areas. The probabilities, as well as the increases in range of probabilities is very important to the analysis of more than recreational impacts.

Page 3.9-2, 3.9.2.2

218 paragraph 2: Include Lake Mead monthly fluctuations along with those for Lake Powell. Seasonal changes in fluctuations and water levels, especially during high use periods, can have large effects on recreationists.

219 Page 3.9-6, Table 3.9-2
Please clarify whether improvements are existing or proposed.

220 Page 3.9-13, 3.9.2.3
paragraph 2: Since lake fluctuations already exceed 25 feet, how much more adaptation is needed to accommodate the new levels of fluctuations?

221 Page 3.9, Table 3.9-1
It might be more correct to say that the probability evens out from 2040-2050 with the real increase occurring between 2030-2040.

222 Page 3.9-36, 3.9.5.3.1
paragraph 2: All three states in the lower Colorado River basin do creel and other types of angler use and success surveys. This is as close to direct information as is available, and may be more indicative of angler satisfaction than availability of launch facilities.

215: The analysis has been revised to discuss potential effects to razorback sucker. Ongoing efforts to protect the species under the ESA will continue under baseline conditions and each of the alternatives. Because there are no known specific threshold elevations for razorback spawning, determining the specific probabilities associated with a particular elevation could not be done. The text was revised to mention ongoing studies of the razorback sucker population in Lake Mead.

216: Reclamation has determined that fluctuations in flows below Hoover Dam to the SIB under the alternatives would be within the historical operating range of the river and would, therefore, not affect recreation within these areas. The FEIS does consider the potential effects of increases in the temperature of water released from Hoover Dam under decreased reservoir elevations on sport fishing within the river between Hoover Dam and Lake Mohave in Section 3.7.3.

217: The analysis of probabilities associated with the occurrence of reservoir elevations below specified elevations was used in the recreation analysis because specific elevations were identifed for recreation resources. Other analyses in the EIS, including the analysis done to determine potential effects on special-status species, did not identify specific elevations with which to analyze probabilities. In these instances, the model projections of certain elevations, typically the median elevation in each year, were used to identify the differences between the alternatives and baseline conditions.

218: Section 3.9.2.2 of the FEIS has been revised to include the typical annual range of Lake Mead elevations. Differences between baseline conditions and alternatives shown for a single month represent differences throughout the year.

219: Table 3.9-2 indicates existing facilities with the exception of Antelope Point. For Antelope Point, proposed facilities are identified in the Development Concept Plan for the facility. A footnote in Table 3.9-2 and the written description of Antelope Point in the FEIS provide information with regard to existing facilities at Antelope Point.

220: The paragraph referenced discusses results from the Combrink and Collins study on the effects of general lake level fluctuations on reservoir facilities at Lake Powell. As stated in the discussion "if lake fluctuations 'exceed' 25 feet, special adjustments would be necessary." Although required adjustments at specific facilities are not known, such adjustments would be necessary both under baseline conditions and the alternatives.

221: It is assumed based on the comment content that the commentor is referring to the discussion below Figure 3.9-1 on page 3.9-14. Discussions of modeling results have been revised in the FEIS.

222: Relevant information on angler use and success rates at Lake Mead, Lake Powell and Lake Mohave from the appropriate resource agencies in Utah, Arizona, and Nevada has been incorporated into Section 3.9.5.. However, it should be noted that, as discussed in Section 3.9.5, catch rates are not expected to be affected by interim surplus criteria.

223 | paragraph 3: The DEIS has not done a complete job in documenting the potential effects to sport or native fish populations that may result from the implementation of the surplus criteria. There is insufficient analysis to say what will be the effects on angler success rates.

Energy Resources

224 | Page 3.10-2, 3.10.2.2.1
paragraph 3: Since Hoover Dam has the larger powerplant, why did Glen Canyon produce more power in 1998? Is this a usual circumstance?

225 | Page 3.10-3, 3.10.2.2.2
paragraph 2: The operable capacity of Glen Canyon is previously stated at 1200 MW, here is it 1048 MW. Which is correct?

226 | Page 3.10-4, 3.10.2.3.1
Please include in this section a discussion of the renegotiation of power contracts for Hoover and Glen Canyon and their effects to power production gains and losses. Depending on the amount of power under the contracts, there may not be any legitimate deficits in the future that could be attributed to the proposed actions. With the power generation resources already stretched during peak use periods, there may be significant monetary gains from having some additional power generated during the 2000-2015 period.

Air Quality

227 | Page 3.11-1, 3.11.2.1
paragraph 2: Where were the 30 and 45 degree slopes for the reservoirs derived from?

Visual Resources

228 | Page 3.12-5, 3.12.4.1.1
paragraph 1: All reservoir elevations are temporary. Average conditions are not likely to result in an increase in reservoir elevations as uses increase over time. Only high runoff years would be able to refill a reservoir.

229 | Page 3.12-5, 3.12.4.1.2
paragraph 1: In the section on cultural resources, the fluctuation in Lake Mead is discussed at 10 to 75 feet. Here it is 20 feet. Please explain.

230 | paragraph 2: This paragraph (and the following pages) is a good example of the type of information that could be provided for other effects sections to set the stage for the reader to understand the magnitude of the effects. We suggest that this type of approach be used in other sections. Note as was mentioned for Lake Powell in the preceding comments, that average inflow years are not likely going to raise reservoir elevations in the future.

223: Sections 3.7.3 and 3.9.5, both of which address sport fishing and the sport fishery, have been expanded. Special status fish species are addressed in Section 3.8.2.2.2.

224: The energy output of a powerplant is a function of the net effective head, the efficiency of the turbine and the quantity of water through the turbine. Obviously this changes from year to year. However, as a point of interest, the 30-year average conversion efficiency of Glen Canyon and Hoover is 463.8 kWh/AF and 456.2 kWh/AF, respectively.

225: The nameplate capacity of Glen Canyon is about 1,200 MW. Because of the flow restriction of 25,000 cfs, the powerplant can only produce 1,048 MW at maximum head.

226: This analysis does not make any assumptions related to contract renewals. However, it is possible that Western Area Power Administration would only make contract commitments when the current contracts terminate based on the foreseeable amounts of capacity and energy during the next contract term. Potential increases or decreases in revenue from changes in power production are beyond the scope of analysis necessary to appropriately assess the potential effects of interim surplus criteria.

227: Average Lake Powell and Lake Mead shoreline slopes used for the air quality analysis are based on general estimates by persons with knowledge of the terrain surrounding the two reservoirs. It should be noted that estimates were developed for the purposes of comparing alternatives to baseline conditions, and determination of the actual slope was not necessary for this comparison.

228: The temporary nature of reservoir levels has been noted in the discussion in the EIS. The increase of median Lake Powell elevations after the interim period is due to the suspension of equalization requirements as discussed in Section 1.4.2.

229: Section 3.13.4 discusses historical annual fluctuations of Lake Mead, which ranged to 75 feet. The 10 to 20 feet fluctuations discussed in Section 3.12.4.1.2 are projected based on modeling results.

230: Comment noted. Discussion of potential effects have been revised as practicable to clarify information presented in the FEIS. Note that the methodology used for analysis of various resources was dependent upon the amount of information available and the potential effects identified through modeling.

31

Cultural Resources

231 According to the next section, the discussion of the Tribes perfected water rights should be done here. There is no such analysis. The analysis should also note how much of their water each Tribe is using, and as part of cumulative effects, when they plan to use all of it.

Thank you for including the lower portions of the river in this discussion. Other sections have not provided this information.

Indian Trust Assets

232 Page 3.14-1, 3.14-1
paragraph 2: The discussion of where perfected water rights should be discussed is confusing. Later in this section, water rights are discussed, but how they relate to perfected water rights, amounts currently developed, under development plans for the near future or are far future uses is not clear. How Tribal water not presently used by the Tribes is accounted for in the state allocations should be discussed in greater detail here. With the considerable amount of new development being envisioned by Bureau of Indian Affairs to fill out Tribal irrigation projects, there is clearly a body of water not being used at this time by the Tribes.

233 Page 3.14-2, 3.14.2.1
What is the significance of the Northern Ute Tribe to Colorado River water in the project area and effects of this action? Is this included in the Upper Basin schedule of increased depletions?

234 Page 3.14-4, 3.14.2.2
What is the significance of the Jicarilla Apache Tribe to Colorado River water in the project area and effects of this action? Is this included in the Upper Basin schedule of increased depletions?

235 Page 3.14-5, 3.14.2.3
What is the significance of the Navajo Tribe to Colorado River water in the project area and effects of this action? Is this included in the Upper Basin schedule of increased depletions?

236 Page 3.14-6, 3.14.2.4
What is the significance of the Southern Ute Tribe to Colorado River water in the project area and effects of this action? Is this included in the Upper Basin schedule of increased depletions?

237 Page 3.14-6, 3.14.2.5
What is the significance of the Ute Mountain Ute Tribe to Colorado River water in the project area and effects of this action? Is this included in the Upper Basin schedule of increased depletions?

231: Tribal water rights are trust assets that are covered under the section on Indian Trust Assets, not under the Cultural Resources section.

232: A detailed discussion of Present Perfected Rights is beyond the space limitations available here. We suggest you read the Supreme Court Decision in Arizona v. California and supplemental decrees. Additional clarifying text has been modified in Section 3.14 to explain how Tribes water is acounted. As Tribal water is developed, and depletions in the Upper Basin increase, less water will be available for storage in Colorado River reservoirs. The modeling for the FEIS includes the increased use of water under Tribal rights over time in both the baseline and action alternatives. Modeling the increased use of water in the Upper Basin, including the Tribal water, is essential in predicting future reservoir levels.

233: The Northern Ute Tribe, located in the Upper Basin, has the right to deplete 248,943 acre-feet. At the current time, approximately 100,000 acre-feet of this water is yet undeveloped. The Northern Ute's Tribal allocation is included in the Upper Basin schedule of increased depletions, and included in the modeling process as discussed in the response to Comment 57-232.

234: The Jicarilla Apache Tribe, located in the Upper Basin has about 30,000 acre-feet of undeveloped water. The Jicarilla Apache Tribal allocation is included in the Upper Basin schedule of increased depletions, and included in the modeling process as discussed in the response to Comment 57-232.

235: The Navajo Tribe, currently has over 150,000 acre-feet of undeveloped water in the Upper Basin. The Navajo's Tribal allocation is included in the Upper Basin schedule of increased depletions, and included in the modeling process as discussed in the response to Comment 57-232.

236: The Southern Ute Tribe, located in the Upper Basin has about 30,000 acre-feet of undeveloped water. The Southern Ute's Tribal allocation is included in the Upper Basin schedule of increased depletions, and included in the modeling process as discussed in the response to Comment 57-232.

237: The Ute Mountain Ute Tribe, located in the Upper Basin has about 50,000 acre-feet of undeveloped water. The Ute Mountain Ute's Tribal allocation is included in the Upper Basin schedule of increased depletions, and included in the modeling process as discussed in the response to Comment 57-232.

32

238 Page 3.14-7, 3.14.2.6
paragraph 2: Where are the table located that show Ft. Mohave over using its California allocation? The untitled table does not appear to show that data. Will the 3,022 af of water California is proposing cover the amount of the overdraft only or will it only cover new lands? How much of their right in Arizona do they use? If not using all of it, who is at present getting the water under surplus allocation and how will that loss be made up?

239 Page 3.14-8, 3.14.2.7
The Chemuhuevi do not use much of their water right now. What is their schedule to begin using that water. Who is at present using that water, and how will that loss be made up?

240 Page 3.14-9, 3.14.2.8
How much of their water does the Colorado River Indian Tribes use as of 2000? How much more do they have available for expansion? Who is using that water now, and what will need to be done to replace that use?

241 Page 3.14-9, 3.14.2.9
Does the Quechan Tribe use all of their water in 2000? If not, when are they planning to begin using that water. Who is at present using that water, and how will that loss be made up?

242 Page 3.14-9, 3.14.2.8
How much of their water does the Cocopah Tribe use as of 2000? How much more do they have available for expansion? Who is using that water now, and what will need to be done to replace that use?

243 Page 3.14-11, 3.14.3
The Central Arizona Project is most likely to face an increase risk of shortages over the next 50 years. Indian waters that come from the CAP will be affected. The discussion here presents more details on the details of those risks, but again does not address the consequences to the Tribes of those losses.

Environmental Justice

No comments on this section.

Transboundary Impacts

244 Page 3.16-3, 3-16.3
paragraph 4: Please explain the difference between the flood control operations "excess flows" from the 200,000 af of water Mexico is eligible for from flood control releases?

245 cont'd below Page 3.16-6, 3.16.4.2
paragraphs 4-5: Please differentiate between native and non-native species in the Cienega. Should the southwestern willow flycatcher be listed as a species that may occur or did likely

238: There is no table in the DEIS that shows the Fort Mojave Indian Reservation is over-using its present perfected federal reserved water right in California. As the table shows in Section 3.14.2.5 of this FEIS, the Tribe's right in California was limited, prior to June 19, 2000, to an annual diversion not to exceed 13,698 acre-feet. The Fort Mojave Indian Reservation's reported diversions in the Article V Decree accounting records for use in California were 21,109 acre-feet in calendar year 1999. As of June 19, 2000, the Fort Mojave Indian Reservation's present perfected federal reserved right was increased to a maximum annual diversion right of 16,720 acre-feet for use in California (see response to Comment 57-19). This additional water right will help cover the amount of the overdraft but the Fort Mojave Indian Reservation may use its 16,720 acre feet of federal reserved right available for use in California on any lands within the reservation boundaries in California. The Fort Mojave Indian Reservation's reported diversions for use in Arizona were 80,252 acre-feet in calendar year 1999. Because the Tribe's water right for lands in Arizona is part of the 2.8 maf apportioned for use in the State of Arizona, any water that is not used by the Tribe first is made available to junior priority holders in Arizona. Any water within this 2.8 maf apportionment that is not used in Arizona may be released by the Secretary under Article II(B)(6) of the Decree as unused apportionment for use in another Lower Division state. Any of this water that is delivered to a California entitlement holder is unused apportionment, not surplus water. There is no loss to make up. If a holder of a Colorado River water entitlement does not use all the water to which it is entitled in any year, that entity does not retain a right to the unused water - it remains Colorado River System water and is available for the Secretary to release for use in another state as unused apportionment or surplus water, under Articles II(B)(6) or II(B)(3), respectively, of the Decree.

239: The Article V Decree accounting records show the Chemehuevi Indian Reservation diverted 664 acre-feet in calendar year 1998 and 265 acre-feet in 1999. The Tribe has proposed to lease some of its water right. Because the Tribe's water right is part of the 4.4 maf apportioned for use in the State of California, any water that is not used by the Tribe first is available to junior priority holders in California in accordance with the priority system established for California by the California Seven-Party Agreement dated August 18, 1931. There is no loss to be made up. See the discussion under Comment 57-238.

240: The most recent Article V Decree accounting records are for calendar year 1999. As of 1999, the Colorado River Indian Tribes reported annual diversions of 599,509 and 5,791 acre-feet of diversions for use in the States of Arizona and California, respectively. These reported uses compare to the tribes' Federal reserved right maximum diversions of 662,402 and 54,746 acre-feet for Arizona and California, respectively. As for disposition if this unused water, see the discussion under Comment 57-238.

241: The Quechan Tribe did not use all the present perfected Federal reserved water rights available for use by the Fort Yuma Indian Reservation in 1999, the most recent year for which Article V Decree accounting records are available. In 1999, the annual diversions reported for the tribe were 31,350 acre-feet. See the discussion under Comment 57-238.

242: The total diversions reported for the Cocopah Indian Reservation were 11,546 acre-feet during calendar year 1999, which exceeded the tribe's annual diversion right of 10,847 acre-feet. See the discussion under Comment 57-238.

243: See response to Comment 56-6.

244: Excess flows to Mexico are defined as flows at the Northerly International Boundary (NIB) in excess of Mexico's scheduled delivery. When flood control releases occur at Lake Mead, Mexico is allowed to schedule up to an additional 200 kaf for delivery for that year. Excess flows under flood control releases are then flows in excess of that increased Mexico scheduled delivery.

245 cont'd | occur historically? Please note that the Yuma clapper rail populations in Mexico are not protected under the U.S. ESA.

Page 3.16-7, 3.16.5

246 | paragraph 1: It should be noted that Mexico will divert any excess water of any category if it has the canal space to do so. It might be appropriate to explain how that water counts or does not count against their allocation.

247 | paragraph 4: It will be Mexico's ability to schedule its 200,000 af that will be adversely affected by the proposed actions since the probability of a Lake Mead water level requiring a flood control release that decreases with surplus criteria and future upstream depletions.

Page 3.16-8, 3.16.5.1

248 | paragraph 2: The date of 2005 for Upper Basin depletions to significantly affect Mexico's surplus flows does not appear to be correct. These depletions do not become sufficiently large until well after 2015.

249 | paragraph 3 and Tables 3.16-2 through 3.16-5: The maximum annual flow given of 8.4 maf does not appear to be logical given the constraints on flow releases over the next 50 years or of the amount of water so recorded in the past. There is not 8.4 maf surplus in the system in any one year, and releases of this magnitude would wipe out the infrastructure of the river. We are unclear as to what these data tell the reader and suggest additional explanation be provided.

Page 3.16-12, Table 3.16-2

250 | The information in this table relates to the previous comment. Additional explanation as to the source of the numbers in the table and what they represent is needed for the reader to understand the information provided. The basic question of how flows of these magnitude can occur with the reductions in available flood waters over time remains to be answered.

Page 3.16-13, 3.16.6.1

251 | paragraph 1: The reduction in historic river flows below the NIB is far more a factor of development of water resources in the United States than it is in what Mexico diverts every year. This should be put into perspective in this discussion. The mention of "potential magnitude" refers back to a concept that has not been adequately explained in this document and requires this explanation before it is useful.

252 | paragraph 2: It may be more correct to say that the establishment of marsh and riparian habitats below the NIB requires overbank flows that deposit sediment rather than scouring flows. Scouring flows deepen the channel, which drops the water table in the surrounding floodplain and has adverse effects to local marsh, backwater and riparian habitats. The elimination or reduction of even smaller level flows than can cause damage to structures may have a profound effect on riparian and marsh regeneration and should be considered here. This concept of the importance of lower "flood" levels has been discussed in relation to other parts of the DEIS.

245: The discussion of historical versus current habitat notes when non-native species such as salt cedar and shrimp were introduced. Occurrence of the Southwestern willow flycatcher in Mexico is noted in Section 3.16.6, as is the status of Yuma clapper rail.

246: Additional information has been added to the FEIS concerning Mexico's practice of diverting excess flows (such water does not count against their allocation).

247: As discussed in Section 3.4.4.5.2 of the FEIS, Mexico receives surplus deliveries 26% of the time for the interim surplus criteria period under baseline conditions, and 23% of the time under the preferred alternative (Basin States Alternative). As noted in Section 3.3.3.3, all alternatives and baseline used identical Upper Basin depletions.

248: As stated in the DEIS on page 3-16-8, paragraph 2, "the relatively high frequencies occurring in years 2001 through 2005 result from the current full reservoir conditions". After 2005, there is a gradually declining trend out to 2050 that is due to the increasing Upper Basin depletions.

249: Reclamation notes that in 1983 through 1987, excess flows at NIB were greater than 9 maf annually, with a maximum of 13.8 maf in 1984.

250: As discussed in Section 3.3.3.5, the range of possible future hydrologic inflows modeled includes the 1983-1987 historical inflows. Such events will cause flood control releases of similar magnitudes in the future.

251: The term "magnitude" has been added to the glossary of the FEIS to provide a definition for this tern. See response to Comment 11-18 which addresses reductions in historic river flows below NIB.

252: Reclamation assessment has been revised to discuss these concepts.

34

253 paragraph 4: How can the magnitude of the annual flows not change if the frequency and amounts of flow decrease? The effects of interim surplus criteria are felt the most in the next few years and that effect has not been shown to be negligible (see table 3.16-1).

254 Page 3.16-14, 3.16.6.2
The desert pupfish in the Cienega is now *Cyprinodon macularius* and the Quitobaquito form is *C. eremus*.

255 Page 3.16-15, 3.16.6.2
paragraph 6: The potential for changes to inflow via the MODE because of salinity control operations should be addressed as part of the discussion of effects to the Cienega.

256 Page 3.16-18, 3.16.6.2
paragraph 6: Please note that as of August, 2000, there is no recovery plan for the flycatcher.

257 Page 3.16-19, 3.16.6.2
paragraph 3: Are there any records of flycatchers using the Colorado River, the delta or the Cienega during the breeding season? Is it reasonable to assume they do or do not breed in the area?

258 Page 3.16-20, 34.16.6.2
paragraph 5: For a discussion of acreage changes in the last 20 years, more recent citations than 1976 and 1986 would be appropriate.

259 Page 3.16-21, 3.16.6.2
paragraph 2: A map would be useful here.

260 paragraph 3: Please note that the clapper rail is not listed by the United States in Mexico. It is listed by the Mexican government under its environmental statutes.

261 Page 3.16-22, 3.16.6.2
paragraph 1: Please note here that crayfish are not native to the Colorado River. The portions of the paragraph on page 23 that relate to crayfish may be moved here for completeness.

262 Page 3.16-23, 3.16.6.2
paragraph 1: Is the CFG Finne-Ramer unit the same as the Wister unit?

263 paragraph 2: Data from 1999 estimated the clapper rail population in the Cienega at 6,400 individuals.

253: Excess flows to Mexico primarily result from flood control releases from Lake Mead. As shown in Figures 3.16-2 through 3.16-5 in the FEIS, the surplus alternatives have annual excess flow volumes over the same range as the volumes for the baseline conditions. The differences between the alternatives and baseline conditions are in the frequency of occurrence (or probability) of excess flow volumes of a particular magnitude (e.g. 2-3% for a volume of 4 maf in year 2005).

254: This information is included in the discussion for the desert pupfish in Section 3.16.6.2.1 of the FEIS.

255: Inflow to and salinity of the Cienaga from MODE would not be affected by the interim surplus criteria.

256: The discussion of the status of the Southwestern willow flycatcher notes this.

257: Reclamation could only find documents of flycatchers being observed in Mexico before its breeding season, and believes it is not reasonable to assume they breed in the area.

258: The analysis for the FEIS focuses on acreages from a 1997 survey of floodplain vegetation in the Limotrophe Division, a 1999 study conducted by the University of Monterrey, University of Arizona, Environmental Defense Fund, and the Sonoran Institute, and a 1998 aerial survey of the Rio Hardy and Colorado rivers.

259: A map has been added to Section 3.16.

260: Comment noted.

261: Mention of when crayfish were introduced to the lower Colorado River and its role in extending the breeding range of the rail has been moved up.

262: No, they are two different areas in California.

263: This has been added to the discussion.

35

264 paragraph 3: Historically, clapper rails probably used the available marshes in the alluvial valleys of the lower Colorado, the mouth of the Bill Williams River and the considerable marsh habitat of the Gila River valley.

265 paragraph 4: The recovery goals for the clapper rail are being clarified by the Service based on information provided by rail experts in 1999.

Page 3.16-24, 3.16.6.2

266 paragraph 6: There has not been a final, one-year finding on the status of the yellow-billed cuckoo. The finding referred to here is the preliminary 3 month finding and this is not definitive as to the status of the subspecies.

Chapter 4: Other NEPA Considerations

Page 4-1, 4.2

267 paragraph 1: Aren't cumulative impacts the result of other activities than the proposed action that may affect the same resources? If so, the definition here is unclear on that point.

268 paragraph 2: We understand that no separate analysis of the cumulative impacts has been done, but that all future and baseline effects were carried forward in the modeling. For NEPA considerations, the origin of an action (Federal or non-Federal) is not an issue. However, it is for analyses done for the ESA under section 7. Future Federal actions cannot be considered as baseline or cumulative unless consultation has been completed for them. This is where the question of how future water depletions in the Upper Basin should be considered in this analysis. Future changes in water use in the Lower Basin, especially as regards currently unused apportionments being used by another party, should also be examined. Although this is not a NEPA question, it might be useful to the reader to include a summary of the different ways cumulative effects are defined in NEPA and ESA.

269 paragraph 3: Cumulative effects are not baseline effects. This should be made clear in this paragraph that there was a compression of the effects analysis to do all things at once.

Page 4-2, 4.3

270 paragraph 2: The benefit of the proposed action is not increasing the efficiency of the decision making process, it is to increase the availability of surplus water by redefining what is a surplus.

271 paragraph 3: Over the shortterm, decreased reservoir levels and decreased flood flows and the natural resources affected by these changes are the costs of implementing a surplus alternative.

272 cont'd below Page 4-3, 4.4

paragraph 1: The surplus criteria could only be revised to be more conservative at the 5

264: Comment noted.

265: This update has been added to the discussion.

266: Information on the legal status of the yellow-billed cuckoo has been revised.

267: As stated in the definition from the CEQ regulations, cumulative impact analyses include the proposed action and other actions.

268: Comment noted.

269: The text has been edited.

270: Increasing the availability of surplus water is not the purpose and need of the proposed action. See FEIS Section 1.1.3 for a definition of the purpose and need.

271: Comment noted.

272: Following a decision to implement one of the action alternatives, the Secretary could choose to revert to the current method for determining surplus. A subsequent decision by the Secretary to revert to the current method (i.e., the AOP process without specific interim surplus criteria in effect) would be different than selecting the No Action Alternative at the present time. The likelihood and timing of such subsequent decision is speculative and not analyzed in the FEIS. Any changes to the interim surplus criteria or the LROC at the 5 year reviews would institute the need for appropriate environmental compliance.

36

272 cont'd | year intervals or additional compliance would be needed. This compliance would have to be based on the present no-action alternative, not on conditions at the time of the review.

273 | paragraph 4: There is an irreversible cost in terms of recreational losses and power production, as well as losses resulting from decreased flows occurring earlier in the time period because of the new criteria.

Chapter 5: Consultation and Coordination

No comments on this section.

Supporting Materials

Glossary

274 | We suggest that more technical terms such as "annual magnitude" flows be included here. Also, that words in the glossary be highlighted in the text at their place of first usage.

References Cited

275 | Please check with L. Fitzpatrick re the information she provided to A. Pool on 14 April as there may have been a mis-communication.

276 | There is no citation for McKernan 1999 and 2000 listed here. These were cited in the Mexico section of the DEIS.

277 | Why are the references for section 3.16 separated from the others?

Attachments

278 | *Attachment A: LROC*
page 2: We assume the requirement for the 75 maf over 10 years was included in all modeling done for future conditions?

279 | *Attachment D: Surplus Criteria Proposed by Six States*
page 1: We suggest that those parts of the Six States plan that were accepted for the modeling or other consideration in this DEIS be summarized or highlighted in this attachment.

280 | page 6, item #6: This is an example for the first comment. There is nothing in the DEIS text that describes a need for California to do this.

281 | page 6, item #7: This an another example. In this case, the amount of water available to California would be limited to only that needed to provide for M&I deliveries. There is nothing in the DEIS that accepts or denies this.

273: Reclamation does not believe recreational losses would be irreversible because the reservoirs and river level are constantly fluctuating up and down over time. Lower levels may actually improve some kinds of recreation such as reservoir fishing as fish become more concentrated. Regarding power losses, power production is not a primary function of Hoover Dam. It is third on the list of dam operation priorities behind flood control/improved navigation and irrigation/domestic uses/satisfaction of present perfected rights.

274: The term "annual magnitude flows" is not commonly used in hydrology. In the FEIS, flows shown on an annual basis represent total volume over the year at the specified point.

275: The L. Fitzpatrick citation has been replaced with information from McKernan (1999).

276: Please see response to Comment 57-275 above.

277: This error from the DEIS has been corrected. These and additional references revising the transboundary impacts analysis have been incorporated into a single list of references in the FEIS.

278: Yes, the requirement was included.

279: Reclamation's Six States Alternative was derived from the Six States proposal. The alternative is as described in Chapter 2, and the assumptions used for modeling are described in Section 3.3.

280: Please refer to the purpose and need discussion in Chapter 1.

281: Please refer to Attachment H for a discussion of the water demand schedules.

37

282 page 7, paragraph 1: Would California use be more heavily monitored in an attempt to free up existing water currently overdrafted by other users to avoid the need for surplus?

283 page 7, paragraph B: There is nothing about Arizona waiving its 46% of any surplus in favor of MWD or Nevada in the DEIS. Since Arizona is the state with the most to lose in the event of a shortage brought on by interim surplus uses, their reasons for doing or not doing this would be complex.

284 page 9, #4: The existence of this "Colorado River Alternative Operating Strategies for Distributing Surplus Water and Avoiding Spills" should be more fully referenced in the main part of the DEIS, especially if it was instrumental in determining the surpluses from 1998-2000.

285 page 10, #5: The Six State plan would have water used for all beneficial purposes, but does not provide for a limit based on the amount of water available over the target elevation. Please explain this distinction.

286 page 12, IV: The issue of overrun accounting and the need to be especially vigilant about such, especially if this can affect future shortages, should also be noted earlier in the DEIS.

Attachment E: Surplus Criteria Proposal by California

287 page A-4, paragraph 3: It should be noted in the DEIS that while stored groundwater may save Arizona and Nevada from a shortage caused by surplus criteria implementation in the near term, it does not provide long term assurance.

288 page A-5: Please note that any increase in surplus criteria would require additional compliance.

Attachment F: Surplus Criteria Proposal by Pacific Institute

We have no comments on this attachment.

Attachment G: Lower Basin Depletion Schedule

289 Please provide page numbers for this attachment.

290 page 1, paragraph 2: Please explain why the water transfers under the 4.4 Plan were not included in the Flood Control Alternative.

291 page 1, paragraph 6: Was the determination of how much water the states would get out of surplus criteria based on how much they asked for in their future depletion schedule? If there was not enough water at the water surface elevation to meet all those needs before it fell below a target elevation, what uses would be curtailed?

282: California would be monitored for its progress in implementing its Colorado River Water Use Plan. Each of the Lower Division states would be monitored as to use of its basic apportionment and purposes for which surplus water is used.

283: Reclamation does not anticipate any waiver of Arizona's percentage right to surplus water. The percentages would apply when a quantified surplus is declared that must be divided among the Lower Division states.

284: The influence of this document is discussed in the introduction to Section 2.2.4.

285: The provisions of the Six States Alternative in this FEIS take precedence over the provisions cited in the attachment.

286: Reclamation is formulating a policy for overrun accounting which we expect will be published in the Federal Register for public review and comment. However, the matter is beyond the scope of this FEIS and is not described in this FEIS.

287: Reclamation's understanding is that conjunctive use of groundwater will play an important role in the water supply for all the Lower Division states.

288: Comment noted.

289: The depletion schedules have been replaced with revised schedules used to model the baseline conditions and surplus alternatives for the FEIS. Page numbers have been added.

290: In the FEIS, the Flood Control Alternative was modeled using California intrastate transfers. See response to Comment 37-11 for additional discussion.

291: The explanation of surplus depletion schedules provided in this paragraph has been revised to provide more clarity. Additional more detailed explanation on the modeling criteria used to determine the availability and amount of surplus water deliveries under the modeled baseline conditions and the different surplus alternatives is provided in Attachment I of the FEIS.

38

292 In Table G-1, are the lower Arizona depletions after 12/24 the result of Level 1 shortages that only affect CAP?

293 *Attachment H: Draft Interim Surplus Guidelines*

Please number the several sections of this attachment sequentially. The separate numbering system is difficult to use once the sections are mixed up.

294 These summaries should contain all parts of the Six States and California plans that would be incorporated into the preferred alternative.

295 Please revise the sections in the introduction to each alternative that address the greater predictability rather than the probability that results from the development of these criteria.

296 Please clarify the assumption that under all surplus declarations, there would be adequate water supplies to meet all appropriate surplus demands without falling below any designated trigger point.

297 In the Six States, California and Shortage Protection alternatives, there are tables showing amounts of water available for surplus use. Where did these tables come from and why are they not discussed in the DEIS proper? Why are they not included in earlier Attachments on these alternatives? Why is there not a set of these for the Flood Control alternative?

298 *Attachment I: Detailed Modeling Documentation*

No data were provided in this attachment. While this will be provided in the FEIS, it would be more appropriate for examination of the models if it was provided here.

299 *Attachment J: Upper Basin Depletion Schedule*

For the purposes of NEPA, it may not be necessary to divide this schedule into sections based on baseline projects, approved future projects (all compliance completed), and other future projects (compliance not completed), but for ESA this may be an issue of concern.

Attachment K: Sensitivity Analysis of Shortage Assumptions

We have no comment on this attachment.

Attachment L: Comparison of Colorado River Flows

300 cont'd below These could be very useful. We would suggest using a finer scale since most values are very close for most of the period of record. This would eliminate the appearance of a complete overlay of the alternative results. Since the effects of the action are hidden in that overlay, it

292: Attachment G of the DEIS is now Attachment H in the FEIS. The tables in these attachments represent the Lower Basin Depletion Schedules that were used as input to the model. These schedules were updated by the states in September 2000, and represent the states' projections of their future water demands under the respective water supply conditions.

293: The attachment has bee revised. The draft guidelines focus on presenting information for the preferred alternative. It is now Attachment I. See response to Comment 57-279 above.

294: The Guidelines contain detailed provisions of Reclamation's preferred plan, and is not necessarily intended to conform to the Seven States proposal.

295: As stated in the purpose and need discussion in Section 1.1.3, a greater degree of predictability is being sought for mainstream users of Colorado River water.

296: When surplus water delivery is based on a trigger elevation, the water level could drop below the trigger elevation once the deliveries are made. See also response to Comment 57-64.

297: The tables are in Chapter 2 of the FEIS. The tabulated values were produced by the operational model.

298: Copies of this Attachment were available at the technical presentation on August 15, 2000, at the four public hearings for the DEIS, and upon request. It is Attachment J to the FEIS.

299: Comment noted.

300: It is difficult to decrease the scale of these graphs without losing data. The size of the data markers has been reduced to make it easier to distinguish between alternatives. Graphs in Attachment L supplement information in the main body of the FEIS.

39

300 cont'd would be appropriate to display the results differently. We would appreciate seeing the data in them incorporated into the main text of the FEIS

Attachment M: Water Supply for Lower Division States

301 These larger size graphs are very useful. As with their smaller versions in the text, there are several points that need to be clarified:

- -how the maximum and 90th percentile lines can overlap
- -how the median, 10th percentile and minimum lines can overlap
- -that time till a change in a line is an important effect of that alternative
- -that minimum values occur more often under the liberal alternatives

302 Please note that the legend for Figure 1 has two maximum lines and no 90th percentile line.

Attachment N: Energy Analysis Worksheets

We have no comments on this attachment.

Attachment O: Ten Tribes Demand Point Spreadsheet

We have no comments on this attachment.

Attachment P: Public Scoping Process

We have no comments on this attachment.

Attachment Q: Consultation with Mexico

We have no comments on this attachment.

Thank you for the opportunity to read and provide comments on this DEIS. If there are any questions about these comments, or we can be of additional assistance, please contact Tom Gatz (x240) or Lesley Fitzpatrick (x236).

David L. Harlow

cc: Regional Director, Fish and Wildlife Service, Albuquerque, NM (ES)

301: Comment noted.

302: This correction has been made for figures in the FEIS.

40

Literature Cited

Hall, G.E. ed. 1971. Reservoir Fisheries and Limnology. Special publication #8. American Fisheries Society, Washington, D.C.

Ploskey, G.R. 1989. A review of the effects of water-level changes on reservoir fisheries and recommendations for improved management. Final Report. Tech. Report E-83-3, National Reservoir Research Program, Fish and Wildlife Service. For U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg, Mississippi.

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

SEP 0 8 2000

4600

Ms. Jayne Harkins
Manager, River Operations
Boulder Canyon Operations Office (BCOO-4600)
Lower Colorado Regional Office
P.O. Box 61470
Boulder City, Nevada 89006-1470

Dear Ms. Harkins:

The United States Section, International Boundary and Water Commission (USIBWC), has reviewed the Draft Environmental Impact Statement (DEIS) for Interim Surplus Criteria for Colorado River Operation. This document was provided by letter dated June 29, 2000 (Reference: LC-2502, ENV-6.00), and our comments follow.

1 | Add **CBRFC**, and **CRSSez** to the list of the Acronyms on page ACR-1. Also, on page ACR-2, correct the entry for IBWC to read, "International Boundary and Water Commission, **United States and Mexico**."

1: The list of acronyms was amended to include CBRFC and CRSSez. The entry on page ACR-2 was corrected.

2 | Page S-7, section S.3.3, subsection Reservoir Water Levels. Correct the sixth sentence in the first paragraph to, "The other three alternatives would result in increased potential for Lake Mead water levels to decline, with median elevations between 15 feet and 27 feet lower than ...."

2: Correction made.

3 | Page 2-3, section 2.2.3, Pacific Institute Proposal. In the first sentence of the second paragraph, correct to read, "Water delivery to Mexico is regulated by the Treaty and various treaty **minutes** based on consultation between the United States and Mexico."

3: Correction made.

4 | **Page 3.4-32. In the first paragraph, correct the reference to Figure 3.3-20 to read, "Figure 3.4-20 provides a comparison ...."**

4: The reference has been corrected.

5 | Page 3.4-34. The entire write-up on this page seems misplaced. A more appropriate location would be on page 3.4-32 following Figure 3.4-19.

5: The text is arranged to accommodate the placement of figures in the respective section and to reduce the amount of white space on each page, and thus minimizing the size of the document.

6 | Page 3.16-1, section 3.16.3, Consultation with Mexico. Correct the first sentence to, "... Reclamation, through the **United States Section**, International Boundary and Water Commission (**USIBWC**) is in the process ...."

6: This correction has been made.

7 | Page 3.16-2. In the second paragraph, change the first sentence to, "In his transmittal, Commissioner **Herrera** expressed a concern ...."

7: This correction has been made.

The Commons, Building C, Suite 310 • 4171 N. Mesa Street • El Paso, Texas 79902
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2

8 Page 3.16-2, listed six items of Mexican Commission's concern for the distribution of surplus water among the Lower Diversion States in the United States. On page 3.16-3, the first paragraph states that, "Although Reclamation recognizes the potential for the United States, acting through the Secretary of State, to continue to work with Mexico on a bi-national basis to clarify and resolve Mexico's concerns, it is not clear that these concerns are a result of interim surplus criteria. Issues not arising from interim surplus criteria are outside of the scope of this DEIS."

9 The Mexican Commissioner's letter of May 11, 2000 represents the Mexican Government's perception of impacts in Mexico. The USIBWC assumes that Reclamation's comments are preliminary and subject to further information and clarification from Mexico. The USIBWC has joined the Mexican Section of the International Boundary and Water Commission in a government to government consultation under the terms of IBWC Minute 242, which requires reciprocal consultations on new or significant modifications to surface or ground waters. These consultations have consisted of technical meetings on April 12, 2000 in Henderson, Nevada; May 12, 2000, in Mexico City; and August 31, 2000 in Las Vegas. At these meetings, the proposed interim surplus criteria and alternatives under consideration were explained to Mexico's National Water Commission (CNA) and Secretariat of Environment, Natural Resources and Fisheries by Reclamation. Discussed in detail were computer runs for impact scenarios at the Northerly International Boundary (NIB), using the index sequential method of historic records since 1906, for the alternatives under consideration. Reclamation's conclusion is that there is not significant difference on flows arriving at the NIB under current practice and those arriving under the Six States and California plans.

10 Mexico's letter of May 22, 2000 along with a letter by the CNA to Reclamation, expressed its concern that the interim surplus criteria could eliminate surplus water flows to Mexico in the 15 years in which it is in effect and its objection to implementation of the interim surplus criteria unless impacts in Mexico are mitigated. Mexico listed six perceived impacts of interim surplus criteria and the lining of the All American Canal and objected to the implementation of the criteria unless these impacts are mitigated. Mexico expressed concern that these impacts could weaken bilateral natural resource protection efforts and urged consideration of use of surplus flows for environmental purposes.

11 More recently, Mexico provided a letter dated September 6, 2000 (copies of Spanish and English translation attached) in which Mexico observes that while Mexico's guaranteed water delivery of 1.5 million acre feet are guaranteed under all alternatives, the probability of Mexico receiving an additional 200,000 acre feet in scheduled deliveries in years of surpluses, are less than the historical probability of 35 per cent. Further, Mexico observes that the probability of there being excess flows below Morelos Dam in the limitrophe section of the river would be well below the historical average of 38 per cent. Mexico perceives that agricultural use would be impacted but that the major impact would be to the environment from Morelos Dam to the Gulf of California. Mexico repeats its objection to the surplus criteria unless mitigation of impacts in Mexico take place and again urged consideration of the use of surplus flows for environmental purposes.

8: Comment noted.

9: Comment noted and Reclamation concurs with the information presented in this comment. Reclamation has revised the discussion for flows arriving at the NIB in Sections 3.3.4.5.4, 3.4.4.5 and 3.16.5 of the FEIS.

10: Comment noted.

11: Comment noted.

3

12 Page 3.16-11, section 3.16.5.2 Comparison of Surplus Alternatives to Baseline Conditions. Change the fourth sentence to, "The largest difference in frequency is observed at the end of the interim surplus criteria ...."

13 Page 3.16-13, section 3.16.6 Preliminary Summary of Effects to Special-Status Species and Habitat in Mexico, subsection 3.16.6.1 Potential Effects to Habitat in Mexico. The U.S. Section must assert that the United States has a right to maximize its use of Colorado River waters reserved to it under the 1944 Water treaty and recognizes that Mexico's right is only for 1.5 million acre feet. The U.S. Section also iterates that the United States Government does not assume any obligation to mitigate for adverse impacts in Mexico. At the same time, the U.S. Section observes that the IBWC consultations with Mexico are a forum to receive comments from the Government of Mexico and provide for technical discussion to carry out, in the context of comity, joint cooperation projects in support of the Colorado River riparian ecology to the Gulf of California that would have a benefit to the United States and Mexico.

Thank you for the opportunity to review the DEIS. If you have questions, please call Mr. Douglas Echlin at 915/832-4741.

Sincerely,

Sylvia A. Waggoner
Division Engineer
Environmental Management Division

12: The data in the FEIS has been updated (see Section 3.3.3.4 for a discussion). The description in Section 3.16.5.2 reflects these changes.

13: Comment noted.

09/08/00 15:24 FAX 202 208 5503 REGIONAL LIAISON 002

United States Department of the Interior

SEP 0 8 2000

NATIONAL PARK SERVICE
1849 C Street, N.W.
Washington, D.C. 20240

IN REPLY REFER TO:
N16(2300)

SEP 7 2000

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Memorandum

To: Commissioner, Bureau of Reclamation

From: Director

Subject: Comments on the Colorado River Interim Surplus Criteria Draft Environmental Impact Statement 7.1000

The National Park Service (NPS) appreciates the opportunity to work closely with the Bureau of Reclamation as a Federal Cooperating Agency in the preparation of the subject Draft Environmental Impact Statement. This cooperation facilitated direct and early input into the preparation of this document. As a consequence, we have been successful in resolving many NPS resource issues as well as clearing up any misunderstandings and routine editorial issues. We look forward to continuing to work with Reclamation to complete this document within the timeframe specified by the Secretary. The enclosed comments represent the most important NPS issues related to the description and analysis of impacts to the resources of the three affected park units -- Grand Canyon National Park, Glen Canyon National Recreation Area, and Lake Mead National Recreation Area.

In addition to finalizing the EIS, and because of the important issues surrounding the interim surplus criteria, the NPS would like to participate, to the extent possible, in the development of the Record of Decision for this document.

We appreciate all of your cooperation on this effort. If you have any questions, please feel free to contact me or Michael Soukup, Associate Director for Natural Resource Stewardship and Science at 202-208-3884.

Attachment

cc: NPS Regional Director, Intermountain Region, Denver, CO
NPS Regional Director, Pacific West Region, San Francisco, CA
BOR Regional Director, Upper Colorado River Region, Salt Lake City, UT
BOR Regional Director, Lower Colorado River Region, Boulder City, NV
Superintendent – Grand Canyon NP, Glen Canyon NRA, Lake Mead NRA
Molly Ross, K.C. Becker, Robert Snow – DOI Office of the Solicitor
Assistant Secretary for Fish and Wildlife and Parks
Nancy Hayes – Office of ASFW
Deputy Secretary Hayes

NATIONAL PARK SERVICE
COMMENTS
COLORADO RIVER INTEIM SURPLUS CRITERIA
DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

September 8, 2000

The National Park Service (NPS) has appreciated the opportunity to work closely with Bureau of Reclamation (Reclamation) staff in Boulder City, Nevada, as a cooperating agency in the development of the DEIS for assessing the effects of Colorado River Interim Surplus Criteria. This cooperation facilitated direct and early input into the preparation of this document that includes an analysis of the effects of alternative interim surplus criteria on the resources of Grand Canyon National Park, Glen Canyon National Recreation Area, and Lake Mead National Recreation Area. As a consequence, we have been successful in resolving many NPS resource issues. The NPS will continue to work closely with Reclamation to provide this level of input for the FEIS.

The NPS does, however, have certain unresolved issues concerning the analysis of impacts to certain resources potentially affected within the three park units.

1 Scope of the analysis – The DEIS uses different methodologies to assess the various resources. Predicted changes in water levels of both reservoirs are made utilizing the 10th, 50th, and 90th percentile of potential hydrological inflows. Annual depletion projections for the three lower basin states are also assessed using these three percentile values. The analysis of cultural resource impacts utilizes 10th percentile water levels to show the most severe drawdown impacts. Equalization assumptions utilize the worst case hydrologic scenarios to protect 602(a) storage within Lake Powell. The DEIS specifically states that the 90th and 10th percentile lines "bracket" where 80 percent of the future water levels would occur (and presumably 80 percent of the impacts). Given this, it is problematic that the above resources are addressed in a comprehensive fashion in the DEIS but that the consequential effects of water level changes on many other affected NPS resources are made using only median water levels. By conducting resource analysis in this fashion, the potential impact of the proposal tends to be minimized and the full range of effects not disclosed. It would seem appropriate to either fully bracket the potential effects (as was done for many other resources) or clearly disclose the rationale for limiting the scope of the analysis.

2 The DEIS states that interim surplus criteria would be implemented for only 15 years, but assesses the effects of the criteria for a 50-year period. After the 15-year period all alternatives revert to baseline conditions (75R), which is one of the alternatives. Why is one alternative continued through the entire 50-year period of analysis when the others are not? The likelihood of the criteria reverting to this baseline is minimal. It would be appropriate for the FEIS to provide some analysis of the effect of continuing with the various alternatives throughout the 50-year period.

1: The methodology used for analysis of various resources was dependent upon the amount of information available and the potential effects identified through modeling. These methodologies are described for each resource/issue analyzed in the various sections of Chapter 3 of the EIS. Note that analysis of recreation resources within both the Glen Canyon and Lake Mead National Recreation Areas determined specific probabilities for certain elevations important to shoreline facilities and navigation with the NRAs. The FEIS contains additional discussion and probability analysis for specific reservoir surface elevations identified through discussions with NPS and others during preparation of this document.

2: As noted in this comment, the interim surplus criteria would be in effect for 15 years, after which these criteria would terminate and determination of surplus conditions would revert to the current AOP procedures. However, the model operation for each alternative was extended beyond the interim period, to 2050, with the interim criteria reverting to the baseline criteria, so that any after effects resulting from the alternatives would be indicated. The baseline model operation was also extended to 2050 so that comparisons could be made. The baseline operating strategy in the DEIS was not an alternative, but was established as a "benchmark" against which to compare the effects of the alternatives, as discussed in Section 2.2.5. This continues to be the case for the modeling analyses in this FEIS.

COMMENT LETTER

3 Recreation – The DEIS addresses the effects of water level changes on recreation facilities (marinas) in Lake Powell and Lake Mead caused by interim surplus criteria by quantifying the costs associated with facility adjustment and capitol acquisition both incrementally and over the 15-year period. The FEIS should quantify the total cost for the entire 15-year period for the 10, 50, and 90 percent hydrologic inflow projections. The DEIS suggests that one or more marina sites could become inoperable at certain unspecified water levels. However, no analysis of these critical levels is provided. Such analyses could easily be made using existing GIS and other data.

4 The effects of marina closures could have broad economic consequences to the local and regional economy that should be recognized and summarized in the FEIS. Further, the effect of such closures on the ability of our concessionaire to make a profit should be analyzed; especially the ability of the Navajo Nation to open and operate their new facility at Antelope Point on Lake Powell should be discussed.

5 River flows below Glen Canyon Dam – The DEIS does not assess the effects of interim surplus criteria on operational river flows below Glen Canyon Dam within Grand Canyon and Glen Canyon. The DEIS states that any effects would be handled through the Glen Canyon Dam Adaptive Management Program (AMP). While the discussion to handle effects through the AMP is reasonable, the potential consequences of the criteria should be clearly specified as they

6 are for flows below Hoover Dam. Further, the potential consequences to resources caused by any change in flows through the Grand Canyon should be specified especially for threatened and endangered and other special status species.

7 Beach Habitat Building Flows (BHBFs) – BHBFs are an important management tool affecting the natural and cultural resources in Glen Canyon and Grand Canyon. While the DEIS section on BHBFs shows a minor impact due to implementation of the interim surplus criteria, clarity would be enhanced by a more compete display of the frequency analysis. We suggest that a continuous curve of the frequency of occurrence of BHBFs supplement Table 3.6-1, and that some additional description be added on how the likelihood of BHBFs changes with specific reservoir elevations as a result of the surplus alternatives.

8 Additional research is required to better understand and optimize the effects that BHBFs have on the environmental resources downstream of Glen Canyon Dam. The NPS recommends that the Record of Decision for this EIS direct the Glen Canyon Dam Adaptive Management Program to consider and address a program of several test flows to research alternative BHBF designs. The NPS suggests that these research tests may be implemented independent of the hydrologic triggering criteria required to conduct BHBFs for Adaptive Management purposes, while maintaining the integrity of the hydrologic criteria for long-term implementation of BHBFs.

9 Threatened and endangered (T&E) fish species – T&E fish species are described for the Colorado River and San Juan River inflow areas of Lake Powell. Specifically, the DEIS acknowledges that critical habitat has been designated for the razorback sucker, Colorado pikeminnow, and bonytail chub. However, the effects of Lake Powell water levels and interim surplus criteria were not included within the environmental consequences section of the DEIS. If there are potential impacts on these species, they should be described in the FEIS. The NPS recommends that any effects be managed through the previously established recovery implementation programs for the Colorado and the San Juan rivers.

2

RESPONSES

3: It is recognized that different percentiles could be used for presenting the information in Section3.9.6. However, Reclamation believes that using median elevations, while not showing all circumstances, appropriately presents the differences between the alternatives and baseline conditions.

4: Differences between baseline conditions and alternatives at the 3626 ft. level are typically less than five percent. Subsequent to publishing the DEIS, Reclamation received additional information regarding threshold elevations from NPS and the Navajo Nation. The FEIS discusses this information in Section 3.9.2.2.2.1, and presents analyses for threshold elevations of 3626 feet and 3677 feet msl.

5: As discussed in the EIS in Sections 1.4.2 (Glen Canyon Dam Operations) and 3.2.2 (Adaptive Management Program Influence on Glen Canyon Dam Releases), the Adaptive Management Program would continue to address resources within the river corridor below Glen Canyon Dam. Two types of flows are of particular concern to the Adaptive Management Program: BHBFs and low steady summer flows. Sections 3.6.2 and 3.6.3 analyze the potential effects of interim surplus criteria on the frequencies of these two flow regimes. No additional analysis of the potential effects on resources within this segment of the river corridor is necessary because, as discussed, the Adaptive Management Program would continue to address these resources consistent with the Operation of Glen Canyon Dam ROD. Because flows below Hoover Dam are associated with water deliveries based on depletion schedules provided by the Lower Division states, modeling conducted for the EIS (which includes depletion schedules) produces forecasts of specific monthly flow volumes. In contrast, releases from Glen Canyon Dam are not made to meet water delivery schedules and are, instead, subject to the requirements of the Operation of Glen Canyon Dam ROD and the Adaptive Management Program. As such, it is not possible to provide the same level of modeling projections for Glen Canyon Dam releases.

6: Information regarding potential effects on river flows and special status species below Glen Canyon Dam, within Grand Canyon and Glen Canyon, is in Section 3.8 of the FEIS.

7: A continous plot of the probability of BHBFs has been added to Section 3.6.2.

8: The Department of the Interior agrees with this comment and the concept that it is important to conduct additional research to better understand and optimize the effects of BHBFs. The Glen Canyon Dam Adaptive Managment Program (AMP) was established as a Federal Advisory Committee to assist the Secretary of the Interior in implementing the Grand Canyon Protection Act of ctobger 30, 1992, which is embodied in Public Law 102-575. The Grand Canyon Protection Act directs the Secretary, among others, to operate Glen Canyon Dam in accordance with the additional criteria and operating plans specified in section 1804 of the Act and to exercise other authorities under existing law in such a manner as to protect, mitigate adverse impacts to, and improve the values for which Grand Canyon National Park and Glen Canyon National Recreation Area were established, including but not limited to the natural and cultural resources and visitor use. Section VI of the October 8, 1996 Record of Decision on the Operations of Glen Canyon Dam Final EIS commits the Department to the implementation of BHBFs, the scheduling, duration, and flow magnitude of which will be recommended by the Adaptive Managment Work Group and scheduled through the Annual Operating Plan process. Reclamation agrees that the AMP is the proper forum in which to explore experimental fows so that in the future, when hydrologic conditions allow such BHBFs as management actions, they can be performed for the greatest benefit of the resources. In advance of the Record of Decision, the Department can report that efforts to expedite consideration and development of the parameters and criteria for future test flows, including BHBFs, are underway through a recently formed subgroup of the AMP's Technical Work Group. Reclamation intends to continue to pursue BHBFs through the AMP. We welcome the continued participation and input of the National Park Service in this effort.

9: Revisions have been made to Section 3.8.2.2.3. Note that potential effects to special-status fish species were analyzed with respect to operations at both Glen Canyon Dam and Hoover Dam. The section also notes that previously established recovery programs are to remain in place. No specific threshold elevations at Lake Powell pertaining to special-status fish species are known to have been developed. Revisions to the description of designated critical habitat were also made within the section.

10 Cultural resources – The DEIS states that the proposed action is an undertaking but has no potential to affect cultural resources since any within the area of potential affect have been already severely affected by ongoing operations. The DEIS then suggests that certain resources might retain qualities making them eligible for inclusion on the National Register of Historic Places (NRHP) and potentially affected by the action. In fact, this is the case for Lake Powell where three cultural sites (Rock Creek, Dan Canyon burial, and Good Hope Bay) have been discovered since 1983 that are above 3,670 feet msl that have either been excavated or were found eligible for listing on the NRHP. In each case, the sites were originally buried and were then exposed due to the inundation and retreat of lake water. It is highly likely that additional sites such as these would be found once a comprehensive or stratified survey was completed.

11 Certain cultural resources not discussed in the DEIS but likely still in existence and potentially greatly affected by future operations are the buried and surface cultural resources located between the normal and the maximum water surface elevations of the respective reservoirs. Within this elevation band, inundation has occurred only minimally (only twice at Lake Powell and only to the 3,708 feet msl elevation). For example, on Lake Powell, the Crumbling Kiva site is found at elevation 3,710 feet msl. Continuing reservoir operations described within the DEIS could potentially affect this site and any others within this elevation band on either of the reservoirs. Without an adequate survey, it is impossible to determine the extent of the impact.

12 Given this rationale, it would be appropriate for the NPS and Reclamation to determine a suitable course of action to identify and protect any remaining cultural resources that may be affected by the proposed action and continuing operations.

13 Lake water quality – The water quality of Lake Mead is generally described in the DEIS. Lake levels and overall volume (through the various alternatives) are recognized as a critical factor in predicting overall water quality. Specifically, the DEIS states that "contaminant dilution and lake water quality are directly proportional to lake volume" and that a reduction in volume would "likely have deleterious effect on lake water quality and, potentially, on water quality withdrawn by SNWA." A general summary of the chemical and pollutant characteristics of the lake is provided but no specific projections are given on how these values would change with the various surplus alternatives. Changes to water quality are implied through very broad summaries of elevation, volume, and surface area changes over the 50-year analysis period (Table 3.5-6). This summary tends to minimize the potential effects by first utilizing median inflow projections and then averaging the change in water level between three analysis periods. Given that the limnology and water quality of Lake Mead are generally known, predictions about changes could be developed and appropriately included in the FEIS.

14 In addition, water withdrawals from Lake Mead would approach 60 feet from surface elevation even utilizing the median inflow projections. This potential is even greater if the 10th percentile inflow projects are utilized. In both cases water release temperatures could increase and potentially affect the aquatic ecology downstream. A discussion of these potential impacts should be included in the FEIS.

3

10: Reclamation's understanding was that most, if not all, historic properties located within the area of fluctuations of the reservoir had lost sufficient integrity that they would no longer be capable of conveying their historic significance. This comment provides important information that this is not the case for all historic properties.

11: Reclamation agrees that the inventory and identification of cultural resources that was conducted prior to the completion of the reservoirs is inadequate by today's historic preservation standards. However, prior to completing the reservoirs, the National Park Service was in compliance with the Historic Sites Act of 1935; they did complete the surveys, investigations and researches of historic and archaeological sites, buildings, and objects for the purpose of determining which possessed exceptional value for commemorating or illustrating the history of the U.S. Furthermore, the NPS did comply with the Reservoir Salvage Act of 1960 with respect to Lake Powell. Archeological data affected by construction of Glen Canyon Dam were preserved to the standards of the time. Reclamation continues to ensure that these data are preserved and accessible to the public based on the Historic Sites Act and Reservoir Salvage Act.

12: For purposes of the undertaking defined as the adoption of specific interim surplus criteria and the subject of this EIS, the projected or predicated effects appear to be encompassed within normal operations. Normal or on-going operations are not the subject of this EIS, therefore, any effects or the resolution of effects of existing operations are beyond the scope of this EIS. Reclamation is, of course, eager to comply with the National Historic Preservation Act and its implementing regulations. Reclamation agrees with the NPS that it has Section 110 responsibilities with respect to on-going operations.

13: The water quality analysis in the EIS appropriately identifies the potential effects of the interim surplus criteria. Potential effects are discussed in terms of the general effects of changing reservoir elevations because specific elevations and periods that such elevations would occur are unknown and cannot be predicted. Use of the median elevations projected by system modeling to discuss differences between the alternatives and baseline conditions does not minimize these potential effects, and instead presents a reasonable means of comparison of potential future outcomes.

14: Potential effects on sport fisheries of increased temperature of water releases from Hoover Dam have been included in Section 3.7.3 of the FEIS.

SEP-07-2000 12:19 POWER SCHEDULING WAPA P.02/02

Department of Energy
Western Area Power Administration
Desert Southwest Customer Service Region
P.O. Box 6457
Phoenix, AZ 85005-6457

SEP - 7 2000

Ms. Jayne Harkins
Attention: BCOO-4600
P.O. Box 61470
Boulder City, NV 89006-1470

Dear Ms. Harkins:

1 Western Area Power Administration (Desert Southwest Region) supports the effort by the Bureau of Reclamation to prepare a Draft Environmental Impact Statement for the Colorado River Interim Surplus Criteria. However, long-term projections prepared by the Bureau of Reclamation show a significant probability that the elevation of Lake Mead will trend to a much lower level. Using existing power production facilities at Hoover Dam, Federal electric power capacity (megawatts, MW) and energy (megawatt-hours, MWH) will fall as the elevation of Lake Mead is lowered. Generation may be curtailed if Lake Mead approaches the Minimum Power Pool elevation. Thus, less low cost Federal power will be available for delivery to electric power consumers in Arizona, California and Nevada.

2 In addition, Western notes that on July 12, 2000, the Bureau of Reclamation reduced the Hoover Powerplant rated capacity from 2074 MW to 2062 MW due to the lowering of Lake Mead elevation to 1203-feet. Thus, actual output capability is less than indicated in Table 6: "Hoover Dam Elevation and Output" in Appendix N: "Energy Analysis Worksheets". In this projection model table, a reduced capability of 2062 MW is not expected until an elevation of 1172-feet, not 1203-feet.

3 From the public power perspective, Western believes that it is in the public interest to maintain Lake Mead at an elevation range similar to its recent historical average. Western supports giving special consideration to essential water needs and a lower lake elevation during severe drought conditions.

Sincerely,

Anthony H. Montoya
Assistant Regional Manager
for Power Marketing

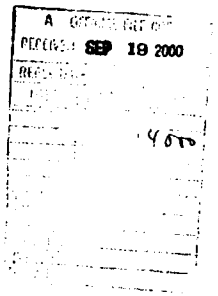
TOTAL P.02

1: Comment noted. As the EIS discusses, the amounts of power available from Glen Canyon and Hoover Dams will be reduced when lake levels decline.

2: The capacity of 2074 MW is produced from the application of theoretical turbine curves to year-end reservoir elevations. There will always be a difference between theoretical curves and actual operating results. Since the difference is approximately 0.5 percent, this error is believed to be within the error of the forecast.

3: Comment noted.

Department of Energy
Western Area Power Administration
P.O. Box 11606
Salt Lake City, UT 84147-0606



SEP 12 2000

Ms. Jayne Harkins
ATTN: BC))-4600
P.O. Box 61470
Boulder City, NV 89006-1470

Dear Ms. Harkins:

Western Area Power Administration (Western) supports the Bureau of Reclamation in its efforts to describe the impacts of various Colorado River Interim Surplus Criteria Proposals in a draft environmental impact statement.

Our Desert Southwest Regional Office will provide you with comments related to Hoover Dam and Lake Mead. This, the CRSP MC, will comment on details in your EIS that deal with Glen Canyon Dam and Lake Powell.

Comments:

1. Figure 3.3-5 illustrates that the elevation of Lake Powell declines over the 50-year time frame of the analysis in the baseline case. It is difficult to understand why this happens and the text of the EIS provides very little explanation. This should be clarified. If it is a result of increased Upper Basin depletions, the EIS should describe how this, under existing reservoir management practices, would affect lake level elevations.

2. The description of existing conditions related to hydropower production from Glen Canyon Dam is woefully inadequate. While the Glen Canyon Powerplant is part of the CRSP power system and in turn part of the WSCC power "grid," the electrical power from Glen Canyon Dam is sold to specific electrical power customers. For the most part, these customers serve rural areas and small towns and are a very small part of the total WSCC system of generators, consumers, and transmission lines. Actions at Glen Canyon Dam have affects on these customers that the WSCC system would scarcely take note of. Therefore, the existing conditions for hydropower ought to be a description of those long-term firm customers who buy power from the CRSP and their retail customers. Further, the impacts of the various alternatives ought to be described in terms of the impacts to those who ultimately bare them: CRSP firm power customers and their member systems and retail loads.

1: Figure 3.3-5 of the DEIS presents the range of Lake Powell water surface elevations modeled under baseline conditions (90th, 50th and 10th percentile values). This same figure also shows the results for four of the 85 hydrologic traces modeled under the baseline conditions. The four traces provide a representation of the fluctuation that occurs under the various assumed hydrologic sequences. As can be seen from these four traces, the water surface elevations of Lake Powell fluctuate from full to lowered conditions throughout the 50-year modeled period. However, as time progresses, due to increasing Upper Basin depletions, Lake Powell's median and 10th percentile elveations decline.

2: Please see response to Comment 16-2. Reclamation believes that the level of analysis for energy resources presented in the EIS appropriately identifies the potential effects of interim surplus criteria.

2

We appreciate the opportunity to comment. Please telephone me at (801) 524-3522 if you have questions or need clarification on these comments.

Sincerely

J. Clayton Palmer

Clayton Palmer
Team Lead, Environmental Planning and
Resource Analysis

From: "John Counsil" <Counsil@wapa.gov>
To: ibr3dm10.3LCDATE(JHARKINS)
Date: 8/24/00 8:38AM
Subject: Minor Comment: Attachment N, Interim Surplus Criteria DraftEIS

Jayne,

Please check Table 2 and Table 4 in Attachment N (Energy Analysis Worksheets).

1 I am not sure if this recommendation is correct, but it appears the change needs to be:

Either change units from "(GWh)" to "(average GWh/month)"

or

Multiply each value in tables by 12 to obtain GWh.

1: The titles to the Tables 2 and 4 were changed to "Average Monthly Energy Production At Lake Mead (GWh)" and "Average Monthly Energy Production at Lake Powell (GWh)," respectively.

CC: "CLAYTON PALMER" <CSPALMER@wapa.gov>

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MEXICAN AGENCIES/ORGANIZATIONS

Letter #	Agency/Organization	Page #
63	Autonomous University of Baja California (AUBC)	B-291
64	International Boundary and Water Commission, Mexican Section (IBWC, Mexican)	B-294
65	Mexicali Business Coordinating Council (MBCC)	B-296
66	Mexicali Economic Development Council (MEDC)	B-298
67	National Water Commission (NWC)	B-300

AUTONOMOUS UNIVERSITY OF BAJA CALIFORNIA

Rectory
Doc. No. 018/2000-2

Ms. Jayne Harkins
Regional Office
Bureau of Reclamation
Boulder City, Nevada 89006-1470

Dear Madame.

The undersigned, Victor Everardo Beltran Corona, Rector of the Autonomous University of Baja California, addresses you in the most respectful manner to advise you that we have received information generated by the Bureau of Reclamation of the United States in a document entitled: "Interim Criteria for the Management of Excess Flows in the Channel of the Colorado River," in which the redistribution of the volumes of excess flows in the Lower Colorado River Basin for the next 15 years is being considered.

Given the enormous importance that the said waters represent to the State of Baja California in Mexico, we are addressing you for the purposes of providing you, for your consideration, with our comments regarding the plan proposed by the Bureau of Reclamation and its probable impacts on the ecosystem and in general on our entire region.

1 cont'd below

The Colorado River hydrologic basin is a region which comprises a territory of nature which should be analyzed as an integrated ecosystem from its origin in the Rocky Mountains of the United States to its final part in the Gulf of California in Mexican territory.

supports 1

From the beginnings of the XX century our region was known as a region of abundant vegetation and native fauna which developed in harmony and splendor due to the waters of the Colorado River which naturally watered these lands. Hydrologic records of the Bureau itself establish the enormous flows which the Colorado River provided to the delta region. The records report average values which exceed 20,000 million cubic meters per year, a situation which drastically changed when the United States government initiated the construction of Hoover Dam in Black Canyon, state of Nevada, causing enormous ecological damage to the entire region.

Additionally, the adverse impacts increased year after year. The reduced water flow volume permitted to pass to the Mexican side was aggravated even further with the dispositions agreed to by the representatives of the two governments, United States and Mexico, who signed the International Water Treaty on February 3, 1944, which regulates the deliveries of water to our country. Nevertheless, the adverse conditions under which this document was negotiated have presented to Mexico a difficult situation in the administration and assignment of water resources. In 1944, they only considered assigning water rights for a reduced part of the agricultural lands and small settlements, overlooking that over time water needs would increase considerably.

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September 8, 2000
No.: Ms 083

Page 1 of 3
File: WAC 10 Surplus Water Supply - Colorado River

1: The Interim Surplus Criteria EIS addresses potential effects of the implementation of interim surplus criteria, not the effects of management of the Colorado River as a whole. As such, the impact analysis focuses on areas that may be affected by interim surplus criteria. Note that Section 3.16 of the EIS discusses the potential for decreased excess flows to Mexico as a result of interim surplus criteria and identifies the potential effects to the natural and physical environment within Mexico may be developed.

supports 1

1 cont'd

This grave omission not only delayed the future growth of regional agriculture and of the cities in our state, but also overlooked a fundamental aspect of the development of all of us who live in this region, the sustainability of the Colorado River Delta, which comprises all the southern part of the Colorado River and the Upper Gulf of California. We emphatically point out that the physical boundary established by man cannot transcend the boundaries established by nature, the Delta also forms part of the hydrological basin of the Colorado River.

During many years (1961-1977), there were many problems between the governments of the United States and Mexico regarding the quality of the waters arriving in the region. Currently, some of these problems still persist; nevertheless, in the hopes of achieving good neighborship between the two countries, our farmers are accepting waters of low chemical, physical and bacteriological quality, such as the case of the waters delivered at the point of diversion known as the Southerly International Boundary at San Luis Rio Colorado, Sonora, which as part of the International Treaty each year receives wastewater coming from the urban and agricultural drainage system of the Yuma, Arizona area, to be used in the agriculture of the San Luis Valley with the consequent deterioration of the subterranean aquifer.

supports 1

Currently, a great number of deep wells in the area have had to be relocated due to the grave deterioration of the water quality which has lessened harvests, and as a consequence harmed economic conditions.

The decrease in the quality of the water delivered at the Northerly International Boundary during the winter is another problem facing our farmers, and one which in addition to the deficiencies in the natural drainage of our soils, makes for even further crop yield reductions.

Based on hydrologic studies conducted by our researchers, it has been possible to determine that the cycle of Colorado River flows periodically reports the presence of extraordinary volumes in the natural channel. This has been analyzed using, as an indicator of the environmental impact, the species of shrimp which develops in the Upper Gulf of California, which has been the recipient of the beneficial impact of the fresh waters which are registered during periods of "El Niño" which stimulate the development of marine fauna, especially shrimp species, totoaba and the *vaquita marina* (a porpoise); in addition to favoring an oceanographic condition of residual currents in the Upper Gulf of California, which due to mass compensation, results highly beneficial to fishing for diverse species and an excellent level of economic development for the fishing community.

Today, the impressive system of dams on the Colorado River has permitted the establishment of an almost absolute control of its waters on their way south. After the construction of the last of the large dams in the channel of the river (Glen Canyon Dam), the possibilities of receiving fresh water in the Mexican area of the Delta were reduced; nevertheless, after May 1, 1979 we were heartened to see that fresh water was arriving in our region, which in spite of flooding in low areas, represented a resurgence in the natural conditions for our flora and fauna. The excess flows continued for the following 20 years: 1980-1981; 1983-1988; 1992-2000.

supports 2

It should be mentioned that during those years in which we have not had the additional volumes contemplated in the International Treaty for the Colorado River, there have been environmental effects on the environment, principally on marine species, such as shrimp, totoaba and *curvina*. This last species, in the last 25 years, had not achieved the level of development that it now has, and this thanks to the maintenance of additional fresh water flows in the natural channel of the Colorado River.

The Mexican delta of the Colorado River comprises a little over 300,000 hectares, of which nearly 35,000 hectares naturally receive the benefit of the waters flowing in the channel. The riverside vegetation, currently constituted of willows, poplars, mesquites, salty pine, *cachanilla*, and others, form a rich, virgin area inhabited by a multitude of animal species, many of which are migratory birds coming from Canada and the northern United States to establish their reproductive areas for future generations.

2

The Autonomous University of Baja California comes before you in the most respectful manner seeking that the proposal that additional volumes of fresh water continue flowing in the Colorado River to the delta region of the river be considered, since only in this manner will it be possible to sustain viable one of the most notable and important ecosystems in the world.

The characteristics which the ecosystem of the Colorado River Delta presents are unique, since only in this region do terrestrial and marine species reproduce as in no other part of our planet; as such, this region should be considered by all of us as a legacy for humanity currently constituted as a Biosphere Reserve.

At this time you are about to make a decision which could provide the hope for the life and development of one of the most important ecosystems which nature has provided to all of us who live in they hydrologic basin of the Colorado River.

SINCERELY,
Mexicali, B.C. September 6, 2000
"FOR THE COMPLETE ACTUALIZATION OF MANKIND"
RECTOR
(Signed)
VICTOR EVERARDO BELTRAN CORONA

Translation: RAV:rav
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September 8, 2000
No.: Ms 0830

Page 3 of 3
File: WAC 30 Surplus Water Supply - Colorado River

2: The U.S. through the IBWC has entered into formal consultations with the Government of Mexico regarding this action. In the context of comity, joint cooperation projects in a support of the Colorado River riparian ecology to the Gulf of California that would have a benefit to the United States and Mexico.

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INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO
MEXICAN SECTION

(SEAL Secretariat of Foreign Relations)

TRANSLATION
NO.: LAK 01644/00
FILE: LAE/33
Ciudad Juárez, Chih.
September 6, 2000

Eng. Carlos Marin
Principal Engineer
International Boundary and Water Commission
The Commons Building C, Suite 310
4171 North Mesa
El Paso, Texas 79902-1422

Dear Eng. Marin:

I refer to the Interim Criteria for the declaration of excess flows in the channel of the Colorado River, as well as to the binational technical meeting last August 31st at Las Vegas, Nevada in which we reviewed the information provided to the Mexican Section concerning the results obtained from the models for the alternatives considered in the said criteria.

In this regard, I have the pleasure of forwarding to you the comments of the National Water Commission regarding the negative impacts which the implementation of the said criteria would provoke in the area of influence in our country in the next 15 years.

1 As the Mexican delegation advised during the referenced meeting, regardless of the fact that all the alternatives guarantee the delivery of 1.5 million acre-feet in 100% of the years, the probability of the delivery to Mexico of the additional 200,000 acre-feet volume is less in all the alternatives (30-34%), compared to the historical probability of 35%. Also, the probability that there will be excesses in the Colorado River downstream of Morelos Dam on average is 18%, well below the historical average (38%). The above, considering annual flows greater than or equal to the 1,000 million cubic meters (810,714 acre-feet) per year, equivalent to an average annual flow of 30 cms (1,059 cfs).

2 The above data obtained from the simulation are higher than those which would be obtained with the models for the actual conditions (September 1, 2000).

3 Based on the above, if it is true that the agricultural users would have only a slight impact in the next 15 years (using the higher table), the greater adverse impact would be felt in the environmental conditions downstream of Morelos Dam to the Sea of Cortez.

4 It is a fact that the values in the simulation are lesser than those recorded, nevertheless, considering the last 20 years during which the two major dams were already in operation, the percentages for excess flows downstream of Morelos Dam are much greater (50%), so that the comparison should be made using these data given that they are the result of the actual system of dams on the Colorado River.

5 cont'd below The alternative which presents the highest values for frequencies and results less damaging to Mexico is the

Dist.: Orig. - C&R; Control Copy - FAO; [e-mail: PE Marin; WAD Rakestraw; DD Robinson; EMD Waggoner; FAO Ybarra]
Translation : JGS:jgs September 8, 2000 Page 1 of 1
I:\Letters\From-to00\Mx24100.wpd No.: MX 241 File: WAC 10 Surplus Water Supply - Colorado River

1: See response to Comment 11-13 regarding additional deliveries to Mexico.

2: It is unclear what this comment means by "actual conditions." Reclamation used data and models accepted as the most representative currently available.

3: The delivery of water to Mexico under all modeled condtions in this FEIS was consistent with the requirements of the Treaty. The diversion and use of such Treaty water is solely at Mexico's discretion. The delivery of excess flows to Mexico occur when flows available in the Colorado River exceeds the amount needed to meet the beneficial water needs of Lower Basin users in the United States. It is not within Reclamation's discretionary authority to make unilateral adjustments to water deliveries to the international border.

4: See response to Comment 31-8 for a discussion of the Index Sequential Method of modeling. A direct comparison with historical values is not representative, since current and projected depletions are greater than those in the past.

5: Comment noted. See response to Comment 57-158 for a discussion of the change in excess flows to Mexico.

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5 cont'd | "Six State" one, with which we find: 100% lower table, 33% higher table and 18% excess flows downstream of Morelos Dam with flows greater than 1,000 million cubic meters (810,714 acre-feet) per year, equal to an average annual flow of 30 cms (1,059 cfs).

6 | Based on the above, I reiterate Mexico's concern given the perspective of decreased excess flows downstream of Morelos Dam due to the fact that part of these is used to leach agricultural lands which prevents the increase in the salinity of 200,000 hectares of cultivation in the Mexicali Valley. Also, there would be very heavy negative effects on the Mexican aquifer with the quantity and quality impacts on the under river channel recharge.

7 | Finally, let me reiterate to you that the Government of Mexico is not in agreement in that the proposed plan be put into practice without considering the measures that would be implemented to mitigate its impact in Mexican territory, as well as the request that the environment be considered as a user of the excess flows that are declared in the Lower Colorado River Basin.

I take this opportunity to reiterate to you the assurances of my most distinguished consideration.

Sincerely,
(Signed)
Gilberto Elizalde Hernández
Principal Engineer

Dist.: Orig. - C&R; Control Copy - FAO; [e-mail: PE Marin; WAD Rakestraw; DD Robinson; EMD Waggoner; FAO Ybarra]
Translation : JGS:jgs — September 8, 2000 — Page 2 of 2
I:\Letters\Frames00\Mx2410E.wpd — No.: MX 241 — File: WAC 10 Surplus Water Supply - Colorado River

6: See response to Comment 56-16.

7: See response to Comment 56-16. Also, the U.S. Section iterates that the United States Government does not assume any obligation to mitigate for adverse impacts in Mexico. At the same time, the U.S. Section observes that the IBWC consultations with Mexico are a forum to receive comments from the Government of Mexico and provide for technical discussion to carry out, in the context of comity, joint cooperation projects in support of the Colorado River riparian ecology to the Gulf of California that would have a benefit to the US and Mexico. Reclamation is working with the IBWC through the consultation process to identify joint cooperation projects. Mechanisms that the Department of the Interior, and particularly the Bureau of Reclamation, have been working on include the Joint Declaration and the follow-up conference held October 11, 2000, in Washington, D.C. Regarding the Colorado River delta area, Reclamation is also actively participating in the Fourth Technical Work Group (Delta Task Force). It is a bi-national group working to conduct a joint baseline study of the water and natural resource conditions in the Cienega de Santa Clara and the adjoining lowermost part of the delta of the Colorado River which utilizes the resources of participating agencies in monitoring, field work, photography and data exchange.

LOGO - MEXICALI BUSINESS COORDINATING COUNCIL

September 4, 2000
Mexicali, Baja California

Jayne Harkins
Bureau of Reclamation
Boulder City, Nevada

It has come to the attention of this business organization that the USBR has presented a proposal or criteria for the management of the excess flows in the Lower Colorado River Basin for the next 15 years for the purposes of distributing them among the users in the lower basin and support the state of California in its assignment of Colorado River waters.

1 This means that in the next 15 years, Mexico will cease receiving the excess flows that in the last 50 years averaged on the order of 2,500 million cubic meters annually (2 million acre-feet), limiting us to the 1,850 million cubic meters (1.5 million acre-feet) established in the treaty.

Additionally to this, you have projected, as a water conservation measure, the lining of the All-American Canal, which when implemented would reduce the flow of groundwater toward Mexico.

2 cont'd below If these programs are implemented, Mexican territory would be negatively impacted resulting in the following:

- The availability of water in the Mexicali Valley would be reduced, also, the dynamic levels in the deep wells would be lowered thus causing an increase in the costs of pumping the groundwater.
- With the elimination of the surface flows, the aquifer would no longer be recharged provoking an increase in the salinity levels in the same.
- Under normal conditions, there is an increase in the salt content in the agricultural soils of the Mexicali Valley which is reduced using the excess flows to leach these lands; if there are no more excess flows, these lands are condemned to conversion into saline soils.
- All the water received at Morelos Dam will also see an increase in salinity and this would be delivered to the irrigation district with the cancellation of the flows in the channel of the Colorado River downstream of Morelos; this means that there will no longer be flows into the Colorado River Delta in such a manner that the flora and wildlife which has established itself along the Colorado River in Mexico will be extinguished if there is no water.
- At the mouth of the Colorado River in the Upper Gulf of California there exist endangered

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September 4, 2000
No.: Ms 081
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File: WAC 10 Surplus Water Supply - Colorado River

1: See response to Comment 66-1.

2: See response to Comment 56-16.

2 cont'd

species, such as the *vaquita marina* (a species of porpoise) and the totoaba; independent of the efforts that the Mexican government is making to preclude their extinction, without any inflows of fresh water into the Sea of Cortez, the process of species extinction will accelerate.

- The harvest of shrimp and curvina in the area of the upper gulf will be reduced if there are no fresh water flows, thus provoking a negative impact on the fishing activities in the region.

3

We want to express our total disagreement with any measure which will affect the availability of water and its effects on the environment in our country, so we are requesting that you contemplate the possibility of including Mexico in the measures decided for the management of the excess flows in the Colorado River.

We appreciate beforehand your attention to this request and take this opportunity to send you cordial greetings.

Sincerely,
(Signed)
Eng. Aurelio Flores Peña
President

3: Comment noted. See response to Comment 64-7.

LOGO - MEXICALI ECONOMIC DEVELOPMENT COUNCIL

September 4, 2000
Mexicali, Baja California

Jayne Harkins
Bureau of Reclamation
Boulder City, Nevada

It has come to the attention of this community organization that the USBR has presented a proposal or criteria for the management of the excess flows in the Lower Colorado River Basin for the next 15 years for the purposes of distributing them among the users in the lower basin and support the state of California in its assignment of Colorado River waters.

1 This means that in the next 15 years, Mexico will cease receiving the excess flows that in the last 50 years averaged on the order of 2,500 million cubic meters annually (2 million acre-feet), limiting us to the 1,850 million cubic meters (1.5 million acre-feet) established in the treaty.

Additionally to this, you have projected, as a water conservation measure, the lining of the All-American Canal, which when implemented would reduce the flow of groundwater toward Mexico.

2 cont'd below If these programs are implemented, Mexican territory would be negatively impacted resulting in the following:

- The availability of water in the Mexicali Valley would be reduced, also, the dynamic levels in the deep wells would be lowered thus causing an increase in the costs of pumping the groundwater.
- With the elimination of the surface flows, the aquifer would no longer be recharged provoking an increase in the salinity levels in the same.
- Under normal conditions, there is an increase in the salt content in the agricultural soils of the Mexicali Valley which is reduced using the excess flows to leach these lands; if there are no more excess flows, these lands are condemned to conversion into saline soils.
- All the water received at Morelos Dam will also see an increase in salinity and this would be delivered to the irrigation district with the cancellation of the flows in the channel of the Colorado River downstream of Morelos; this means that there will no longer be flows into the Colorado River Delta in such a manner that the flora and wildlife which has established itself along the Colorado River in Mexico will be extinguished if there is no water.
- At the mouth of the Colorado River in the Upper Gulf of California there exist endangered species, such as the *vaquita marina* (a species of porpoise) and the totoaba; independent of the efforts that the Mexican government is making to preclude their extinction, without any inflows of fresh water into the Sea of Cortez, the process of species extinction will accelerate.

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September 6, 2000 Page 1 of 2
No.: Ms 082 File: WAC 10 Surplus Water Supply - Colorado River

1: As shown in Figure 3.16-1 in the DEIS, the probability of excess flows to Mexico for all years (2000-2050) is not zero (17 percent or greater for all surplus alternatives and baseline.) For the FEIS, the probabilities are 13 percent or greater from 2003 through 2050.

2: See response to Comment 56-16.

2 cont'd

- The harvest of shrimp and curvina in the area of the upper gulf will be reduced if there are no fresh water flows, thus provoking a negative impact on the fishing activities in the region.

3

We want to express our total disagreement with any measure which will affect the availability of water and its effects on the environment in our country, so we are requesting that you contemplate the possibility of including Mexico in the measures decided for the management of the excess flows in the Colorado River.

We appreciate beforehand your attention to this request and take this opportunity to send you cordial greetings.

Sincerely,
Mexicali Economic Development Council
(Signed)
Lic. Federico Diaz Gallego
President

3: See response to Comment 56-16.

AUG-22-2000 TUE 01:01 PM IBWC EL PASO FAX NO. 915 832 4191 P. 02/03

General Subdirectorate for Construction
Border Affairs Coordinator
Letter No. B00.03.04-191/00

(SEAL)
National Water Commission

Mexico City, Mexico, August 18, 2000

Mrs. Jayne Harkins
Bureau of Reclamation
BC00-46-00, PO BOX 61470
BOULDER CITY, NV 98006-1470
United States of America

(Dear Mrs. Harkins:)

I refer to the draft environmental impact (statement) that identifies the potential environmental effects that would occur if the a specific criterion is adopted for the management of excess flows of water in the lower basin of the Colorado River in the next 15 years.

We understand that the above document will be submitted for public consultation the last two weeks of this month. According to this, as Colorado River water users, we take the liberty of expressing our position on the potential impacts in Mexico if the surplus management criteria proposed by the USBR is applied.

It should be mentioned that this position has already been communicated at the beginning of last June by the Mexican Commissioner to his United States counterpart.

In the current operating conditions, Mexico since 1950 has received an approximate annual volume of 2,530 million cubic meters (2,050 acre-feet) of excess flows which have been used beneficially in our country, precluding the environmental deterioration of the physical and natural environment of the Colorado River.

The plan proposed for the distribution of the excess flows between the three U.S. states of the lower basin tends to eliminate these flows for 15 years. Also, in the California Plan, water conservation measures which would affect the recharge of the groundwaters shared by both countries are being considered; this is the specific case with the lining of the All American Canal. We estimate that the feeding *[sic]* of these flows would have the following effects on the Mexican physical and natural environment:

1 | 1. Impact on the recharge of the aquifer in quantity and quality reducing the beneficial use of the same.

2 | 2. Increase in the salinity of the 200,000 hectares of cultivation in the Mexicali Valley since part of the excess flows are used to leach this soil.

3 | 3. Deterioration in the quality of the water received by Mexico at the Southerly International Boundary (SIB), especially with regard to salinity because the fresh water flows are used to reduce the high salt concentrations at SIB.

Translation: RAV:ravigo
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No.: MS 000
Page 1 of 3
File: WAC 10 Surplus Water Supply-Colorado River

1: Section 3.16.5.3 has been added to the FEIS to provide additional information on the general potential impacts that the implementation of the interim surplus criteria may have on the frequency of excess flows to Mexico as well as the potential resultant impacts to groundwater recharge and salinity south of the international border. See also responses to Comments 64-7 and 56-16.

2: See response to Comment 67-1.

3: See response to Comment 67-1.

AUG-22-2000 TUE 01:01 PM IBWC EL PASO FAX NO. 915 832 4191 P. 03/03

4 4. Deterioration in the quality of the water received by Mexico at NIB with the reduction of the flows to the amount of the Mexican demand and maintaining discharges to the river of flows from the agricultural drains in the Yuma, AZ area.

5 5. In the upper part of the Sea of Cortez endangered fish species and those requiring special protection would be affected, such as: the most rare and scarce cetacean in the world, the sea cow and the Totoaba. Also, commercial fishing in the area would be affected, especially shrimp and two species of curvina, fish which have not been seen in significant numbers in the last 25 years.

6 6. As far as the existing flora in the reach between Morelos Dam and the mouth of the Colorado River at the Sea of Cortez, in recent years, 33,000 hectares of native riparian vegetation has been reestablished in the watershed, composed of poplars, willows, mesquites and salty pines, among other species which are fundamental to the ecosystem since many of them are used for nesting by a great number of birds such as the Yuma Clapper, the yellow seagull, the sea dove and the royal blue swan, among others, same which would be affected by these measures.

7 It should be pointed out that the identified effects could weaken the cooperative bilateral relations regarding the Delta, which include the coordination between the contiguous protected natural areas, the environmental management of the basin and binational accords for habitat protection, of wetlands, and migratory species in which both countries are signatories such as the Ramsar Convention, the Management Plan for North American Aquatic Birds and the UNESCO Network of Reserves.

8 Finally, let me point out to you that the government of Mexico is not in agreement with putting into effect the proposed plan without considering the measures which would be implemented to mitigate its impact in Mexican territory. Also, I emphasize our request that the environment be considered a user of the excess flows which would be declared for the lower basin of the Colorado River. We support the goodwill of the Department of the Interior of the United States in proposing a " zero net loss of benefit to the environment" in the development of the surplus criteria.

I take this opportunity to reiterate to you the assurances of my distinguished consideration.

SINCERELY,
Border Affairs Coordinator
(SIGNED)
ENG. JAIME TINOCO RUBI

cc: Eng. Prospero A. Ortega Moreno, General Manager of Construction
cc: Eng. Arturo Herrera Solis - Mexican Commissioner - IBWC
cc: Dr. Francisco Oyarzabal Tamargo - Regional Manager of the Peninsula of Baja California

Translation: RAV:rav:jgs August 22, 2000 Page 2 of 2
I:\Letters\Misc00\M500000.wpd No.: M5 000 Title: WAC 10 Surplus Water Supply-Colorado River

4: Comment noted. Additional analysis regarding salinity at the NIB has also been added to the FEIS, in Section 3.16.5.

5: Section 3.16.6 of the EIS discusses potential effects on the sea cow (Vaquita) and the totoaba, as well as other endangered species known to occur in Mexico.

6: Section 3.16.6 of the FEIS includes additional information about potential impacts of the proposed interim surplus criteria on special status species and their habitat which may occur in both the U.S. and Mexico, including the Yuma Clapper Rail and Southwestern Willow Flycatcher. The description of the affected environment acknowledges that habitat along the river is also used by many other species of concern.

7: Reclamation is continuing its consultation and coordinaton with the IBWC. See FEIS Sections 3.16 and 5.3.2 for updated information.

8: Comment Noted. Please see updated Section 3.16, Transboundary Impacts.

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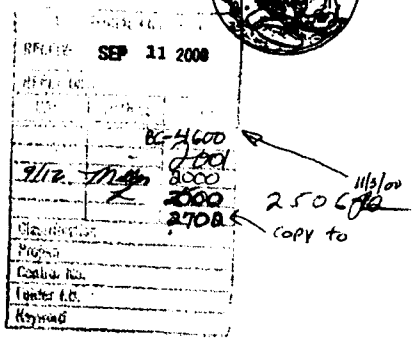
ADDITIONAL TRIBE

Letter #	Tribe Name	Page #
68	Kaibab Band of Paiute Indians	B-303

(93)

Kaibab Band of Paiute Indians



September 5, 2000

Mr. Robert W. Johnson, Regional Director
Bureau of Reclamation
Lower Colorado Regional Office
P.O. Box 61470
Boulder City, Nevada 89006-1470

Ref: C-2502; ENV-6.00
DEIS Colorado River Interim Surplus Criteria

Dear Mr. Johnson:

We are pleased to make comment on the DEIS Colorado River Interim Surplus Criteria. The environmental impacts address mostly those affected areas of users of the river below Hoover Dam. Also, there are some issues which are out of our comment range for now which will address State and Tribal water usage agreements along the Colorado River.

1 The affects and consequences on the environment will occur during and after the spring snowmelt and summer rains. Obviously, it will affect Tribal and State water use during periods of droughts and floods. It will affect the vegetation, wildlife and threaten & endangered species habitat and erode beaches and other land areas during these seasonal periods. The number of Tribes being consulted on this first Draft

2 Environmental Impact Statement must seriously be considered to be included as part of a working group to develop agreements, etc. Direct communication is more likely to result in lasting agreements needed to move forward with planning for the Colorado River.

3 We trust that we have your commitment to be flexibile and create partnerships in developing deference and priorities, with Tribes, in the effort to protect the Colorado River ecosystem and its resources. Water is and has been an intrinsec part of the Native American homelands. As is noted in the DEIS, "The interim surplus criteria will not alter the quantity or priority of tribal entitlements" and " ...the Tribes have

4 the highest priority water rights on the Colorado River." Another concern we have is with the quality of the water for down river users. Assure us that the water will not be pollsted to the point of being toxic.

Sincerely,

VIVIENNE-CARON JAKE, Director
KPT Environmental Program

cc: File
: Tribal Administration

Tribal Affairs
HC 65 Box 2
Pipe Spring, Arizona 86022
Phone (520) 643-7245
Fax (520) 643-7260

1: Potential environmental effects of interim surplus criteria are addressed in the EIS. Specifically, effects on water supply are discussed in Section 3.4; effects on special-status species and habitat are discussed in Section 3.8; and effects on the frequency of beach/habitat-building flow (BHBFs) and low steady summer flow releases from Glen Canyon Dam are discussed in Section 3.6.

2: Comment noted. Reclamation has consulted with, and will continue to work with potentially affected Tribes to address their concerns. Tribal consultations undertaken in association with interim surplus criteria are discussed in Section 5.4.

3: Comment noted.

4: Potential effects on water quality are discussed in Section 3.5, and environmental commitments associated with water quality are discussed in Section 3.17 of the FEIS.

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ORAL COMMENTS

Letter #	Agency Name	Page #
69	Oral Comments Provided by Mr. Wade Noble	B-305

Oral Comments Provided by Mr. Wade Noble

The following is a written transcript of oral comments provided by Mr. Wade Noble at the August at August 24, 2000, public hearing held to receive comments on the Colorado River Interim Surplus Criteria Draft Environmental Impact Statement:

MR. WADE NOBLE. My name is Wade Noble. I'm an attorney from Yuma. I represent three irrigation districts in the Yuma area, the principal of which is the Wellton-Mohawk Irrigation & Drainage District.

1 We support the Seven Basin States proposal generally. We don't want to comment or elaborate more on the well-articulated positions regarding the effects of the proposal on energy resources, principally Hoover resources. Bob and the Power Authority set those forth pretty well, but down where we are, at the bottom of the river, it's pretty clear to us that it's not just the flows that you have coming out to generate the power but it's the head loss. So we are concerned that

2 you're going to have a natural decrease in head loss due to reduce inflows into Hoover so much that they're predicting, as the Power Authority noted and we have noted as well, as much as a 35 percent decrease in capacity just over the next year or so because the levels of the lake will be lowering.

We are somewhat concerned about the Seven Basin States proposal with regards to the steps that California must take and the interim periods and the criteria for meeting those goals and what happens if they do not meet those goals. As Mr. Dishlip explained this evening, if they don't meet the goals, it's the understanding of the other Basin States that the agreement falls apart and the interim surplus criteria go away and that we go back to a more conservative management of the river under those circumstances. That creates concerns for Wellton-Mohawk.

3 One of the items in the Seven Basin States proposal is for a 15-year extension of the interim period on the savings for the Coachella Valley ditch lining canal lining. And if that interim surplus criteria is terminated because the surplus no longer exists on the river, then Reclamation has to deal with the issue of 138,000 acre-feet that they've got to come up with that they don't have to come up with now or during any period in which the interim period is in effect. And so we wonder what happens under the Seven Basin States proposal if it falls apart because California doesn't meet the goal. Does that mean that there will be an immediate declaration of nonsurplus, so to speak, on the river, which will cause a problem particularly for Reclamation and, since it's directly related to Wellton-Mohawk, the bypass flows that occur as a result that are being credited now.

4 And we would further like to comment that among considerations that are being given has to do with the beneficial use and return flows into the river, and we're concerned that any water that would return to the river that would be beneficially used if it were not otherwise consumed by such things as phreatophytes ought to be considered regardless of where it is returned to the river.

1: A new alternative, the Basin States Alternative, has been included in the FEIS. This alternative was derived from the Seven States proposal, and has been selected by Reclamation as the preferred alternative.

2: Comment noted. Section 3.10 of the FEIS discusses potential reductions in Hoover Dam powerplant capacity under baseline conditions and each of the alternatives.

3: Comment noted. For the analysis in the FEIS, it was assumed that the Yuma Desalting Plant would become operational in 2022 under baseline conditions as well as under interim surplus criteria (See Section 3.3.3.3, General Modeling Assumptions). The suspension of the tiered interim surplus criteria prior to the end of the 15-year period is discussed in Section 1.4.1. Attachment I to the FEIS includes draft guidelines for the administration of the interim surplus criteria under the Basin States Alternative which address standards for progress by California.

4: Evaluation of the method of accounting for return flow and the definition of beneficial use are not within the purpose and need for the proposed action and are therefore not addressed in the FEIS.

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