
River Basin Studies

Western Water Policy Review Advisory
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Colorado River Basin Study Comments--Colorado River Water Conservation District

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Colorado River Water Conservation District

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COLORADO RIVER WATER
CONSERVATION DISTRICT

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April 7, 1997

Denise Fort, Chairperson
Western Water Policy Review Advisory Commission
PO Box 25007, D-5001
Denver, CO 80225

**SUBJECT: COLORADO RIVER BASIN STUDY - DRAFT
DATED MARCH 1997**

Dear Chairperson Fort:

The Colorado River Water Conservation District has reviewed the draft report and recognizes the amount of work which went into the preparation of a report of this magnitude in such a short period of time. Due to such time pressure, and the lack of significant outside review prior to this date, some issues are not addressed completely. We will address first the recommendations contained both in the Executive Summary and the "Recommendations" chapter, as those are the items most likely to be read and disseminated to the broadest number of people.

1. **The basin states and Secretary of the Interior should agree on and formalize a cooperative management structure for the basin to address and resolve major water management issues affecting the public interest.**

Comment: The Basin States and the DOI currently meet and address annual and long range operations of the Colorado River System. They have also established special working teams addressing issues of narrower interest, such as endangered species recovery management programs in the respective basins. The Upper Colorado River Basin Compact and the creation of the Upper Colorado River Commission obviated the need for the Federal government to act as Water Master in the Upper Basin. There is no need to create a new layer of administration such as a "Colorado River Coordinating Council" to assume overall operation of the entire river system.

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2. **The federal government should undertake a thorough review with the basin states over the next several years to determine how the various agencies could be reorganized to provide more efficient, cost-effective service in administering their program, which does not sacrifice the national interest but which defers to state implementation and management wherever possible. In addition, federal agencies with water management programs and responsibilities should be organized along watershed or sub-basin boundaries.**

Comment: That there are inefficiencies in some of the current management structures of the various federal agencies, making it difficult to gain consistent decisions on resource use. However, in any reorganization effort, it must be recognized that problems don't always fall on Watershed boundaries either. The USBR, organized along watersheds, has a single region which stretches from the Canadian border to the Mexican border, with its headquarters located almost at the Canadian border. Decisions on operations of the Colorado River components of two of Colorado's major transbasin diversions are made outside of the basin in Montana because the receiving parts of the project are in the Great Plains Basin. Agencies with multiple-basin management responsibilities should have clearly defined channels for interbasin consultation and coordination.

3. **A centralized and integrated data center for the Colorado River basin should be established to collect and provide a comprehensive, reliable, scientific and economic database that is electronically available to all who need it.**

Comment: The United States Geological Survey already serves as the "centralized and integrated data center" without any need to create another agency. Additional funding for USGS activities may be necessary to achieve the authors' objectives. It is therefore incumbent on all agencies and interests to advocate for adequate funding through the annual appropriations process to enable USGS to continue this function.

4. **The Secretary and basin states, with input from other interests, should agree on a plan for reservoir operation and surplus and shortage criteria that protect the entitlements of all basin states and meets federal statutory obligations and treaty**

obligations to Mexico.

Comment: We agree that such a plan should be developed.

5. **An interstate water bank should be established in the Lower Basin along the lines proposed by Arizona, with maximum flexibility for marketing and banking water, including tribal water.**

Comment: A Lower Basin Water Bank should be encouraged, as long as it does not divert California from its task of reducing its usage of Colorado River water to 4.4 Million Acre Feet/year. This would enable the Lower Basin to remain within their total allocation of 7.5 MAF, while working toward an equitable distribution of the water among the states of the Lower Division.

6. **The basin states and local water managers need to develop stronger conservation programs to maximize conservation and reuse potential and more clearly define and regulate beneficial use.**

Comment: Within Colorado, beneficial use is clearly defined and regulated. Current law allows, and in many cases requires, that transbasin diversions be utilized to extinction. However, some of the reuse plans being considered by Front Range Colorado municipalities are running afoul of US Fish and Wildlife Service concerns over endangered species water needs at the Colorado-Nebraska border. Yet, this is in direct conflict with the Service's goals to reduce impacts to the Endangered Colorado River Fishes in the Colorado Basin. This is another example of the need for interbasin consultation and coordination.

7. **Recovery plans for endangered fish in the Colorado basin should be integrated in one range-wide recovery plan; recovery goals need to be more clearly defined and recovery implementation programs should be coordinated basin-wide.**

Comment: This represents a confusing use of the term "range-wide." If it means that there should be an integration of the Upper Basin Recovery Programs with the Lower Basin Multi-species Conservation Plan, this might be a laudable goal in a different Basin

environment. However, it is at odds with the configuration of the system and the status of the species in each area. While there is a physical potential of re-establishing a wide ranging fish population in the Upper Basin above Lake Powell and below Flaming Gorge, this is no longer possible below Glen Canyon Dam. For better or for worse, the river environment has been irrevocably changed, and we must live within those changes, not long for times gone by. The Lower Basin MSCP is an attempt to recognize that fact, and exist within the new parameters, balancing protection of the environment with direct impacts. The three existing Endangered Species plans address distinct ecological regions within the basin, regions which, for the purposes of those species, will never again be connected. The Service should, however, recognize the progress and protections achieved in all of the Recovery Programs when determining "sufficient progress" for each of the Programs.

8. **The Secretary should establish a policy which allows for more public input into the development of reasonable prudent alternatives under Section 7 of the Endangered Species Act; the FWS should develop policies that provide water development interests with accountability and more clearly defined mitigation requirements that will provide the maximum possible long-term certainty for existing and planned water development projects.**

Comment: Any effort by FWS to recover endangered species through mitigation requirements must be focused primarily on recovery. While it is important that FWS policies provide "accountability" and "maximum long-term certainty," the mitigation requirement, imposed by FWS must be realistically achievable and lead ultimately to recovery of the target species.

9. **A funding plan which includes dedicated funding sources for endangered species recovery, habitat restoration, and environmental enhancement in the basin should be developed.**

Comment: The current Upper Colorado Endangered Fishes Recovery Program is attempting to develop secure long term funding through Congressional authorization and appropriation.

10. **A Binational Commission should be established to review and make recommendations on the potential for restoration of the Colorado River delta and the environmental and economic benefits of such restoration.**

Comment: Any study on restoration of the Colorado River delta must also include a legal, institutional and physical assessment of the sources of the water for this restoration and the economic and social impacts of removing that water from its current commitments. It must start with the recognition that there are no long term surpluses of water in the Colorado Basin and any changes will, of necessity, impact existing rights holders. The Delta, while it has been designated an "International Bioreserve" by the Republic of Mexico, is located entirely within Mexico and is ultimately dependent upon the waters which Mexico makes available.

11. **The Yuma Desalter should be decommissioned and other, less costly, alternatives developed by the Secretary and the states to meet salinity standards pursuant to Minute No. 242 of the Mexican Water Treaty. The Secretary should commission a comprehensive study of alternatives to operation of the Desalter and what should be done with this facility.**

Comment: We disagree completely that the Yuma Desalter should be decommissioned. The Desalter was designed and constructed to meet a national obligation to the Republic of Mexico to deliver water of adequate quality, while allowing the users in the United States to continue to make full use of their waters allocated by compacts and treaties. Abrogation of this commitment at this time would entail either removing water from use in the United States or asking users in the Republic of Mexico to bear the risk and cost of accepting waters of lesser quality. Neither is an acceptable alternative.

12. **Salinity control programs need to be prioritized to increase effectiveness of expenditures, emphasizing on-farm irrigation management, reuse and conservation, fallowing agreements, and retirement of marginal lands.**

Comment: The Colorado River Basin Salinity Control Program has always been a program targeted at least cost measures to improve salinity.

This was underscored in the 1995 amendments to the Salinity Control Act, with the resultant request for proposals for private salinity control activities. One measure of the cost effectiveness of the program is seen in the fact that while a ton of salt removed from the Colorado River system has a value of approximately \$320 in avoided costs. Currently, the Federal Government considers salinity control projects in excess of \$70/ton not to be cost competitive. The cost/benefit ratio of acceptable projects must be reconsidered and adjusted to accommodate additional projects with measurable positive benefits.

13. **The federal government should develop a more effective strategy and establish priorities for settling and implementing Indian water rights claims in the basin.**

Comment: Agreed. The Federal government has been extremely dilatory in pursuing the Animas-La Plata project, which would provide waters to satisfy a significant amount of Indian water rights claims in southwestern Colorado and northern New Mexico. Any additional development of Indian water rights will of necessity mean bringing Federal monies to bear.

14. **The basin states and tribes should agree on a plan for integrating tribal water use, banking, and marketing of tribal water in state and basin water management systems.**

Comment: Agreed, but this must be conducted within the existing framework of the "Law of the River."

COMMENTS REGARDING THE BODY OF THE REPORT:

Background Information:

Page 8, 3rd paragraph: The tree ring studies represent the synthesis of a long hydrologic record from a statistical correlation and represents just one hypothesis of the yield of the basin. Measured flows over the last 100 years yield different results and those should also be mentioned.

Page 8, last paragraph: This paragraph contains a misleading comparison of the

peak flows below Glen Canyon Dam in the pre-dam period versus the average daily flows during May and June in the post-dam period.

Page 10, first paragraph: The average yield from 1930 to 1996 was 13.9 MAF, not 13.0 MAF.

Page 14, third paragraph: The "more recent flow estimates" is only the tree ring studies. Recent history, or even recorded history, does not confirm that as fact, and the statement that the river is over-allocated by 25% is tied to one hypothesis, not fact.

Page 15, Figure 5: The entire collection of diversions for the Metropolitan Denver area were indicated as "a number of small projects." These existing diversions represent a significant amount of the transbasin water diverted from the headwaters of the Colorado River, and also, an even greater percentage of the future expansion of transbasin diversions.

Page 16, Figure 6: It was not clear whether the entire Metropolitan Denver Area received some water from the Colorado River.

Page 18, Table 5: The Colorado River Basin Compact has two conflicting sections which deal with the apportionment of water to the Upper Basin. The statement at the top of the table "The Upper Basin has the right to use 7.5 maf ...to Mexico" is an interpretation of the Compact, not a statement of what the Compact allocates.

Page 18, Table 5: The Upper Colorado River Basin Compact was entered into in 1948, not 1949.

Page 24, last Paragraph: The last time the USBR published a full statistical summary of accumulative funds expended on Reclamation projects was the Summary Statistics, Volume II, Finances and Physical Features, 1984. At page 25: Summary of Funds available for Programs 1903 - 1984, it cites \$1,710,573,366 as having been expended from all sources for all projects in the Upper Basin. While that was 13 years ago, water development in the Upper Basin has not been nearly sufficient to more than double that amount.

MAJOR ISSUES:

Page 46: An introduction or transition would be helpful to educate the uninitiated reader about the differences in water management structures in the Upper Division (prior appropriation and permit) or the Lower Division (Secretary as water master).

Page 48, First Paragraph: The state agency in Colorado responsible for appropriating and holding instream flow rights is the Colorado Water Conservation Board (CWCB), not the Colorado River Conservation Board (CRCB). As to whether or not a call has been exercised for any of these decrees, it would be more appropriate to check with either the CWCB or the State Engineers' Office rather than relying on an unverified attribution. The water right which was donated to The Nature Conservancy (TNC) was on the Gunnison River, not the Yampa. The conflict over the transfer centered on the fact that the right was conditional, not absolute (i.e., the water right had never been put to beneficial use). An estimate had to be developed as to what the water right **would** have consumed had it been absolute and that estimate then converted to an instream flow. It is still possible to transfer an existing developed water right to CWCB and convert it to an instream flow.

Page 48, Paragraph 2, 4th Sentence: Counties in Colorado do not have a "veto over rights of way." There is a law in Colorado, commonly referred to as "House Bill 1041," passed in the 1970's which grants counties the right to regulate projects of a state-wide interest (such as utility corridors, transportation facilities and water projects) which occur within their counties. This is not a veto power, but a permit process conducted by a local permitting agency. To date, only one water project, Homestake II by Colorado Springs and Aurora, has had a 1041 permit denied.

Page 51, Paragraphs 1 and 2: We believe that it is either the Southern Utes or the Ute Mountain Utes, not the Southern Mountain Utes to which you refer.

Page 54, first full paragraph: The report fails to differentiate between conservation or efficiency methods employed by in-basin, upper division water users, which mainly serve to avoid treatment costs, versus conservation methods employed by end of system or transbasin users, which actually serve to reduce the amount of water consumed, or to extend the supply. A low flow shower head used in Grand Junction, Colorado only exchanges direct stream flow for return flow from the waste water treatment plant. It all still ends up in Lake Powell.

Page 55, Penultimate Line: We believe that you mean "non-native," not "normative."

Page 56, Penultimate line: It was the Colorado Water Conservation Board, not the Colorado River Water Conservation Board, which filed for the instream flows.

Page 56-57, Upper Basin RIPRAP: There is no mention of the Redlands fish ladder which was made operational last year, the refugia for endangered fishes, the stocking programs or the non-native control programs. These are all important aspects of the Recovery Program.

Page 57, Last line: The use of the term “permit applications” when referring to instream flow filings in Colorado is inappropriate. These are water rights filings, not permits.

Page 68, Paragraph 1: This discussion is unclear, especially the statement, “The cost to remove the salt is about \$130/ton.” Is this statement intended to refer to the previous statement about pre-treatment, or the earlier statement concerning the cost per acre foot of desalting the water?

Page 68, Paragraph 3: If the average salinity at the Northerly International Boundary has been about 1,000 ppm, we have been violating the Numeric Criteria or our treaty obligations. The water delivered to the NIB can be no more than 115 mg/l +/- 30 greater than the water delivered at Imperial Dam. The Numeric Criteria at Imperial Dam is 879 mg/l. However, it has not been this high since 1972 and averaged 787 mg/l in 1995. Thus, the water delivered to Mexico should be no greater than 902 mg/l.

Page 69, last Paragraph: This entire paragraph is misleading at best and is inaccurate in its comparisons. The comparison of the increased TDS of the North San Diego wastewater salinity over the past decade does not mention that the decade started with the three highest consecutive flow years of record and ended with the four lowest years of record. The statement, “The salinity of Colorado River Water has increased from a dry season average of 485 ppm in 1986 to over 700 ppm in 1994” is also a comparison of high flow years to low flow years, with the attribution of the variation in salinity to the variation in flow.

COMMENTS REGARDING RECOMMENDATIONS:

Most of the comments related to this section we addressed in the Executive Summary response. However, the general tenor of the recommendations is toward a larger, centralized system of governmental solutions to the problems facing the basin. We disagree with this approach. Additionally, it is also at odds with the recommendation of “less federal management” is part of the stated goal. Consensus management, which also appears to be a desire of the author, requires decentralized control and authority, with no one party having veto control over basin water decisions.

Additionally, there are some inconsistencies in recommendations on redistribution of water to highest values while protecting existing property rights, environmental issues, and social-economic structures. Much of this movement of water will entail extreme disruption of current structures, both environmental and social-economic and would need to be implemented very conservatively, in a manner which adequately protects all existing rights, uses, and values.

Thank you for the opportunity to review this report. I trust that as the Commission moves toward finalization of this report and their ultimate report to Congress, that these comments will be taken in the spirit of cooperation in which they are intended.

Sincerely,

A handwritten signature in black ink, appearing to read "David H. Merritt", with a stylized flourish at the end.

David H. Merritt, P.E.
Chief Engineer

DHM/vms