



**Colorado River Basin State Representatives of Arizona, California, Colorado,  
Nevada, New Mexico, Utah, and Wyoming**

May 11, 2012

*Via E-mail and U.S. Mail*

Mr. Larry Walkoviak, Regional Director  
Attn: Dennis Kubly  
Bureau of Reclamation  
Upper Colorado River Office  
125 South State Street, Room 7218  
Salt Lake City, Utah 84138

Re: Comments on (1) Draft Finding of No Significant Impact for the Environmental Assessment for Development and Implementation of a Protocol for High-Flow Experimental Releases from Glen Canyon Dam, Arizona through 2020; and (2) Draft Finding of No Significant Impact for the Environmental Assessment for Non-native Fish Control Downstream from Glen Canyon Dam.

Dear Messrs. Walkoviak and Kubly,

On behalf of the seven Colorado River Basin states and Upper Colorado River Commission (collectively the "States"), we wish to thank the Bureau of Reclamation ("Reclamation") for issuing for public consideration and comment the Draft Finding of No Significant Impact for the Environmental Assessment for Development and Implementation of a Protocol for High-Flow Experimental Releases from Glen Canyon Dam, Arizona through 2020 ("Protocol FONSI") and the Draft Finding of No Significant Impact for the Environmental Assessment for Non-native Fish Control Downstream from Glen Canyon Dam ("Non-native Fish Control FONSI"). We submit these comments on both the Protocol and Non-native Fish Control FONSI, which were released on April 27, 2012 with the comment period ending on May 11, 2012. We ask that Reclamation please consider these comments in finalizing the NEPA process for these documents and compiling the administrative record.

**Overall Comments:**

The States wish to emphasize the importance of the HFE Protocol and Non-native Fish Control actions contemplated in a manner that complies with the Law of the River and promotes or avoids interfering with the survival of the endangered humpback chub. Toward these ends, the States applaud Reclamation for ensuring that both FONSI: (i) expressly recognize the actions contemplated will be implemented consistent with the 2007 Interior Record of Decision on the Colorado River Interim Guidelines for Lower

Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead; (ii) tier the actions to the 1996 Record of Decision for Glen Canyon Dam Operations that transcends the time period for the ongoing 5-Year Experimental Plan as well as the HFE Protocol and Non-native Fish Control actions; (iii) recognize the non-native fish control actions as necessary mitigation for implementing the HFE Protocol consistent with the 2011 Biological Opinion; (iv) set a path forward for operating Glen Canyon Dam while continuing to respect Tribal cultural values; (v) make clear the HFE Protocol is experimental as opposed to a management action as set forth in the 1996 Record of Decision or 1997 Operating Criteria; and (vi) expressly recognize implementing the proposed actions does not represent an interpretation of existing law nor predetermine future actions or operations at Glen Canyon Dam.

The States further provide the following comments to bolster the integrity of the FONSI and related actions consistent with our support.

### **Comments Applicable to Both FONSI:**

A. Tribal Values and National Historic Preservation Act: The States support removal of non-native fish that both benefit native fish and respect the Tribes' cultural values. We believe the mitigation measures listed on page 11 of the Non-native Fish Control FONSI meet these twin goals.

However, in addition to introducing mitigation measures, both the Protocol FONSI and Non-native Fish Control FONSI conclude that taking of life associated with past non-native fish control results in adverse impacts under the National Historic Preservation Act (the "NHPA"). Non-native Fish Control FONSI, p. 11; Protocol FONSI, p. 14. This conclusion should not be regarded as implying the NHPA, in and of itself, provides an independent basis for protecting fish. See, 36 C.F.R. §§ 60.4 and 800.16(f)(1). Rather, the States understand, but may not agree, that the conclusion is intended to suggest non-native fish control actions may have an indirect effect on historical properties that implicate the NHPA.

To avoid unnecessary confusion and controversy, the States recommend Reclamation remove the conclusion that non-native fish control affects the NHPA from both the Protocol and Non-native Fish Control FONSI. In the alternative, the States reserve their rights to disagree with the assertion that non-native fish control actions may implicate the NHPA in any way based upon future evaluation and consideration.

B. Consistency between Documents: Both FONSI rely on and reiterate the requirements of the 2011 Biological Opinion. Non-native Fish Control FONSI, pp. 5-9; Protocol FONSI, pp. 7-11. When the two FONSI reference the 2011 Biological Opinion, they should remain consistent with each other. For example, in the Protocol FONSI, actions for the Kanab ambersnail are listed under Reasonable and Prudent Measures. However, page 7 of the Protocol FONSI states that the Reasonable and Prudent Measures ("RPMs") are for the humpback chub. Reclamation further lists measures for economics and cultural impacts that have nothing to do with RPMs for the

humpback chub. In comparison, the Non-native Fish Control FONSI lists the Kanab ambersnail actions as mitigation measures. Non-native Fish Control FONSI, p. 4. Given these references, the final FONSIs would benefit from changing the scope of the RPMs to include more than just humpback chub or moving the measures unrelated to humpback chub to the Mitigation Measures section. The States also recommend that both FONSIs use the same language to summarize the 2011 Biological Opinion and ensure that the defined terms throughout both FONSIs are consistent to avoid confusion.

In addition, the U.S. Fish and Wildlife Service will require Reclamation to conduct immediate non-native fish removal if certain triggers are met in the 2011 Biological Opinion. Non-native Fish Control FONSI, p. 4; Protocol FONSI, p. 5. It is the States' understanding that the Memorandum of Agreement regarding Non-Native Fish Control in the Colorado River below Glen Canyon Dam ("NNFC MOA") requires Reclamation to notify the Tribes at least 30 days prior to conducting live removal. NNFC MOA, p. 5. The Non-native Fish Control FONSI also emphasizes that consultation with the Tribes prior to non-native fish control, although it does not mention the 30-day requirement in the NNFC MOA. Non-native Fish Control FONSI, p. 11. It would be helpful if these requirements in the Non-native Fish Control FONSI and NNFC MOA were reconciled and tracked with the 2011 Biological Opinion requirement for immediate fish removal prior to finalizing the FONSIs.

Moreover, the Protocol FONSI states that Reclamation will "identify non-native fish species that may affect aggregations to determine the need for control actions" as part of the Conservation of Mainstem Aggregations. This measure is not listed in the Non-native Fish Control FONSI. Compare Non-native Fish Control FONSI, p. 7, with Protocol FONSI, p. 7. Non-native fish control is intended to serve as mitigation for the high-flow experimental releases proposed in the Protocol FONSI. The States would like to better understand the reason for this difference between the FONSIs or recommend that Reclamation make sure the Non-native Fish Control FONSI is complete and consistent with the Protocol FONSI.

#### **Protocol FONSI Comments:**

A. Proposed Action: The Protocol FONSI provides a general description of the proposed action as including experimental high-flow releases ranging in magnitude and duration based on input of tributary sediments, resource conditions and a three-prong decision-making process. Protocol FONSI at pp 3-4. It then notes that both the storage and release and rapid response approaches for timing high-flow releases "have been put forward." *Id.* at 4. Finally, the document refers in later sections to specific mitigation or conservation measures as also being part of the proposed action. See *e.g., id.* at pp. 7, 12. From these descriptions and references, what actually constitutes the elements of the proposed action remains unclear. To better understand the basis for the FONSI and the components of the proposed action, the final decision document should include a clear itemization of each element that constitutes part of the proposed action as it is

intended to be adopted and implemented pursuant to the Final Environmental Assessment and FONSI.

**B. Consultation:** In different sections the Protocol FONSI identifies different parties whom Reclamation will consult with prior to deciding to conduct an experimental high-flow release. In the Proposed Action Section, the FONSI notes the decision process will be carried out through the GCDAMP with input from the Adaptive Management Work Group, *id.* at 3, and that Reclamation will consult the Basin States prior to conducting an HFE, *id.* at 4. In the Reasonable and Prudent Measures Section, the FONSI explains how formal consultation with the U.S. Fish and Wildlife Service will be reinitiated, if necessary. *Id.* at 5-6. Likewise, in the Cultural Mitigation Section, the FONSI identifies a process for consulting parties to the Protocol MOA. *Id.* at 9. Because these references to input and consultation are general in nature and scattered throughout the document we cannot discern how these various consultation activities will be implemented and considered as part of the decision making process. The States recommend the Final FONSI clarify the consultation processes as contemplated, including who will be included and when they will be conducted.

Along these same lines, there is currently no mention of consultation in the Decision Matrix section of the Protocol FONSI. The section provides only that [r]ecommendations for HFEs developed by knowledgeable scientists and resource managers will be acted upon by Interior, as described above, with due consideration to the full breadth of resources that might be affected by the high-flow. *Id.* at 5. Because other areas of the FONSI reference consultation as being part of the decision making process, the Final FONSI would benefit from clarifying what is meant by "acted upon," as described above and further clarify how the consultation efforts are included in the decision matrix.

**C. Flexibility:** The Protocol FONSI suggests the Protocol may be modified as appropriate to provide the flexibility to respond to sediment inputs during windows of opportunity. *Id.* at 4. While such flexibility is beneficial, it is important to note it is not unlimited. It continues to be constrained by the purpose and parameters of the NEPA analysis.

**D. Documentation:** The Protocol FONSI refers to a number of reviews, evaluations and reports that will be provided and used as part of the decision to conduct a high-flow release. *See e.g., id. at 2, 5, 15.* The final FONSI should further clarify how the decision, based on the three-prong process of the decision matrix and various consultations, will be documented prior to conducting a high-flow release.

**E. Impacts to Humpback Chub:** The States appreciate Reclamation and the Department's willingness to re-evaluate the trigger for conducting a high-flow release and/or non-native fish controls based on the annual status of humpback chub population as identified according to the best available information.

As an additional noteworthy item, as currently set forth, the Protocol FONSI may be internally inconsistent regarding impacts to humpback chub. On page 12, under the heading "Impacts that may be both beneficial and adverse," the Protocol FONSI states that the proposed action is expected to have beneficial impacts to humpback chub. But page 17 "under the heading "Degree to which the action may adversely affect an endangered or threatened species" states that the Biological Assessment determined that the proposed action may affect and is likely to adversely affect humpback chub. Without further clarification, the conclusion on page 17 that "long-term consequences of the proposed action are expected to be beneficial" could be construed as being contradictory to determinations set forth in the Biological Assessment. See *id.* at 17. To avoid confusion and to demonstrate compliance with NEPA, the Protocol FONSI should clarify how it is consistent with the analysis and conclusions in the Biological Assessment.

#### F. Specific Observations:

1. Introduction "at page 1, 1st paragraph: The purpose of an HFE Protocol has been based on the need to explore opportunities associated with conducting and analyzing the effects of multiple experimental high-flow releases from Glen Canyon Dam. Because no such protocol has been implemented before, no one can determine whether such action will actually benefit resources downstream of Glen canyon Dam. To accurately reflect this situation, the words "whether and" should be inserted prior to "how multiple events can be used . . ."

Likewise, to better reflect the status of the current science, "can" should be changed to "may" where the Protocol FONSI states "The rebuilt and rejuvenated sand featured and associated backwater habitats **can** provide key wildlife habitat."

2. Proposed Action "at page 4, 3rd paragraph: This paragraph provides, "Sand deposited as sandbars was a primary component of the historic pre-dam Colorado River ecosystem." Because the pre-dam Colorado River was a sediment rich river that transported large quantities of sediment that scoured the canyon bottom and both eroded and deposited material along the river shores, the States request including a more complete description by stating, "Deposition and erosion of sand was a primary component of the historic pre-dam Colorado River ecosystem."
3. Decision Matrix "at page 5: According to this paragraph, "Reclamation will take a conservative approach and will re-evaluate, and suspend if necessary, the HFE Protocol, if it anticipates that significant impacts could occur that cannot be mitigated." The Protocol should be suspended well before permanent damage is done that cannot be mitigated. Accordingly, the States request Reclamation delete the language "that cannot be mitigated."

4. Conservation of Mainstem Aggregations at page 7: This paragraph provides that Reclamation will . . . work within its authority through the GCDAMP to ensure that a stable or upward trend of humpback chub mainstem aggregations can be achieved. It then outlines additional efforts that will be coordinated. The States support these efforts but disagree to the extent such efforts are considered an obligation under NEPA or the Endangered Species Act. The States recommend the language to ensure that a stable or upward trend . . . be changed to to promote a stable or upward trend . . .
5. Cultural Mitigation at page 9: Please provide a list of the parties to the Protocol MOA.
6. Impacts that may be both beneficial and adverse at page 12: The language in the first sentence should add including conservation and mitigation measures to clarify the basis for the statement. The new sentence would read: The proposed action, including the conservation and mitigation measures, is expected to have beneficial impacts to sediment resources, and to endangered species such as the humpback chub.

Given the uncertainty of the science regarding backwater habitats, the reference to benefits to associated backwater habitats should be qualified similar to that identified in Item Number 1, *supra*. Accordingly, the language backwater habitats that can provide key wildlife habitat . . . should be changed to backwater habitats that **may** provide key wildlife habitat . . .

7. Degree to which the effects on human environmental are controversial pages 13-14: Similar to explaining why the Tribal concerns associated with the Protocol are not highly controversial, the final document would benefit from including an explanation as to why the concern about having to find replacement power as a result of the Protocol is also not highly controversial.

## **Non-native Fish Control FONSI**

### **A. Specific Comments**

1. Distinction Between Mitigation Actions and RPMs pages 5-11: The FONSI sets forth at pages 5-6. conservation measures which have been agreed to as part of ESA section 7. The FONSI then identifies at page 7 the RPMs which are necessary and appropriate to minimize incidental take of humpback chub. In this section, Reclamation identifies additional non-native fish control options to reduce recruitment of non-native rainbow trout at Lees Ferry, including, for lack of a better term, the potential for stranding flows. Finally, at page 11, the FONSI states, Anglers have expressed concern about related actions that could directly affect the trout population but are not part of the proposed action, such as further testing of non-native fish suppression flows . . . Taking these statements together, it is unclear whether the discussion of stranding flows under the RPMs section is simply quoting the 2011 Biological Opinion or intended to be

May 11, 2012

Page 7 of 8

incorporated as a mitigation measure pursuant to the FONSI. For this reason, the States recommend that Reclamation clarify in the final documentation the role of "stranding flows" as part of the FONSI.

2. Conservation of Mainstem Aggregations at page 7: Same comment as Item Number 4 in the Specific Comments section for the Protocol FONSI.

### **Reservation of Rights**

The States provide the above comments to the High-Flow Experimental Protocol and Non-native Fish Control FONSIs to bolster the integrity of the NEPA documentation consistent with our support. In the past, the States have agreed to not challenge an experimental high-flow release that bypasses the power plant facilities in the interest of comity and gaining useful information. We extend the same agreement to the high-flow experimental protocol, but reserve our positions and rights concerning future high-flow releases whether they are deemed experimental or management actions.

Furthermore, in the course of reviewing the material in the draft FONSIs, the States may have overlooked assertions that impact our respective interests. Failure to raise such concerns in these comments shall not be construed as an admission with respect to any factual or legal issue, or waiver of any rights for the purposes of any future legal administrative or other proceeding.

Thank you for your consideration of these comments.

Sincerely,

[Signatures on next page]



□□□□□□□□□□□□□□□□□□□□  
Sandra A. Fabritz-Whitney  
Director  
Arizona Department of Water  
Resources



□□□□□□□□□□□□□□□□□□□□  
Dana B. Fisher, Jr.  
Colorado River Commissioner  
Colorado River Board of California



□□□□□□□□□□□□□□□□□□□□  
Jennifer Gimbel  
Director  
Colorado Water Conservation Board



□□□□□□□□□□□□□□□□□□□□  
Patricia Mulroy  
General Manager  
Southern Nevada Water Authority



□□□□□□□□□□□□□□□□□□□□  
Jayne Harkins  
Executive Director  
Colorado River Commission of  
Nevada



□□□□□□□□□□□□□□□□□□□□  
Dennis J. Strong  
Director  
Utah Division of Water Resources  
Utah Interstate Stream Commissioner



□□□□□□□□□□□□□□□□□□□□  
Estevan Lopez  
Executive Director  
New Mexico Interstate Stream  
Commission



□□□□□□□□□□□□□□□□□□□□  
Patrick Tyrrell  
Wyoming State Engineer



□□□□□□□□□□□□□□□□□□□□  
Don A. Ostler  
Executive Director  
Upper Colorado River Commission



OFFICE OF THE SECRETARY  
**U.S. Department  
of the Interior**

[www.doi.gov](http://www.doi.gov)

## News Release

Date: May 23, 2012

Contact: Adam Fetcher (DOI) 202-208-2416

Lisa Iams (Reclamation) 801-524-3673

### **Salazar Announces Improvements to Glen Canyon Dam Operations to Restore High Flows and Native Fish in Grand Canyon**

*Adaptive management strategy meets water and power supply needs*

WASHINGTON □ Secretary of the Interior Ken Salazar announced today that, as part of the Interior's Glen Canyon Dam Adaptive Management Program, and in cooperation with five Interior agencies, the Bureau of Reclamation is approving two long-term research and experimental programs of high-flow releases and native fish protection to preserve and improve the Grand Canyon and its resources. Together, these decisions represent the most important experimental modification of operations of Arizona's Glen Canyon Dam in over sixteen years.

The two programs authorize changes in flow releases from the dam to meet water and power needs, but also to allow better conservation of sediment downstream, more targeted efforts to control non-native fish predation, and continued scientific experimentation, data collection, and monitoring to better address the important resources in the Colorado River below Glen Canyon Dam.

□ We've gained tremendous knowledge about the unique resources of the Grand Canyon in the Colorado River downstream of Glen Canyon Dam over the past sixteen years, □ said Secretary Salazar. □ Today's decisions constitute a milestone in the history of the Colorado River and will provide a scientific foundation to improve future operations to benefit resources in the Grand Canyon, as well as the millions of Americans who rely on the river for water and power. □

The first program establishes a long-term protocol for testing high-flow releases from Glen Canyon dam to determine whether multiple high flow events can be used to rebuild and conserve sandbars, beaches, and associated backwater habitats that have been destroyed or lost over the years of the dam's construction and operation. The experimental protocol will simulate natural flood conditions in order to provide key wildlife habitat, potentially reduce erosion of archaeological sites, enhance riparian vegetation, maintain or increase camping opportunities, and improve the wilderness experience along the Colorado River in Grand

Canyon National Park. The protocol is designed to take full advantage of sediment provided by tributaries of the Colorado River as a result of rainstorms and monsoons.

The protocol for high-flow experimental releases applies [scientific information gained](#) in previous high flow releases in 1996, 2004, and 2008 and provides the necessary, flexible framework to conduct further experimental releases through 2020 to determine the optimal timing, duration, frequency, and conditions that will maximize ecological and riparian benefits downstream in the Grand Canyon. For more information on the program, click [here](#).

The second program outlines a series of actions and research to control non-native fish and protect endangered native fish in the Colorado River below Glen Canyon Dam. Conservation of native fish, particularly the endangered humpback chub, will be enhanced by reducing the threat of predation and competition from non-native fish and improving critical habitat. The actions will also ensure continued compliance with the Endangered Species Act and a Final Biological Opinion issued by the U.S. Fish and Wildlife Service in 2011. Extensive government-to-government tribal consultations and analyses were conducted to ensure the required non-native fish control actions can be implemented in a way that respects tribal perspectives. For more information on the program, click [here](#).

□Implementation of these two programs marks a huge step forward in integrating the management of a dam that's critical to the delivery of water and power to millions of people in the Southwest with better conservation of the incredible values of the Grand Canyon, □said Assistant Secretary for Water and Science Anne Castle. □We are refining our operations to reflect what we've learned and address the concerns expressed by several Native American tribes about the management of fish at locations honored as sacred sites by many of the tribes and pueblos. □

The actions outlined in both detailed Environmental Assessments completed today include important scientific research and monitoring components that are fundamental to the adaptive management process. Reclamation has primary responsibility for operation of Glen Canyon Dam and the National Park Service has primary responsibility for Grand Canyon National Park and Glen Canyon National Recreation Area.

"The National Park Service is a strong supporter of high flow tests to help determine how best to rebuild and sustain the beaches and sand bars below Glen Canyon Dam. We appreciate the extensive collaboration required to develop these research programs which are critical to preserving the awesome resources and visitor experience along the Colorado River in Grand Canyon National Park," said Jonathan B. Jarvis, Director of the National Park Service.

Today's actions represent the most comprehensive experiment for protection of the Grand Canyon since Secretary of the Interior Bruce Babbitt signed a Record of Decision in 1996 and conducted the first high flow release. The experiments will help answer critical questions about the complex interactions between dam releases and resource responses, and also advance the goal of the Grand Canyon Protection Act to improve resource conditions.

###



**Basin States' Representatives on Colorado River Operations  
States of Arizona, California, Colorado, Nevada, New Mexico, Utah, and Wyoming**

June 4, 2012

*Via E-Mail and U.S. Mail*

Ms. Beverly Heffernan  
Bureau of Reclamation  
Upper Colorado Regional Office  
125 South State Street, Attn: UC-700  
Salt Lake City, Utah 84138-1147

Mr. Rob Billerbeck  
National Park Service  
12795 W. Alameda Pkwy.  
Lakewood, CO 80228

Re: Preliminary Alternative Concepts

Dear Ms. Heffernan and Mr. Billerbeck,

The seven Colorado River Basin States and the Upper Colorado River Commission (collectively "States") write this letter in response to the distribution and discussion of preliminary alternative concepts for the Long-Term Experimental and Management Plan EIS ("LTEMP EIS") and the May 10, 2012 correspondence from Glenn Knowles and Rob Billerbeck regarding the current schedule for drafting the LTEMP EIS. On March 30, 2012 the Bureau of Reclamation ("Reclamation") and the National Park Service ("NPS"), as co-lead agencies for the LTEMP EIS, distributed a newsletter summary of alternative concepts for consideration at a public meeting in Flagstaff, Arizona on April 4-5, 2012 ("Flagstaff Meeting"). According to the co-leads, the purpose of the Flagstaff Meeting was to present preliminary alternative concepts in an informal setting to increase public involvement and transparency. It was not intended to be a formal public comment meeting, but rather a workshop for discussion purposes only. In the May 10, 2012 correspondence, you indicated that "the lead agencies will create working draft alternatives for the project using the preliminary alternative concepts and the input...received at the public workshop on April 4-5, 2012 in Flagstaff, AZ." That correspondence also stated: "In June, the lead agencies will present draft alternatives to the Cooperating Agencies and solicit comments from them." This letter is submitted to clarify the States' understanding of the status of the alternatives development process for the LTEMP EIS.

As you are aware, the States are in the process of developing a meaningful alternative to include in the EIS analysis. We are presently researching the status of existing science on a variety of resources and considering mechanisms for addressing resource conditions downstream of Glen Canyon Dam consistent with the Grand Canyon Protection Act and "Law of the River," including the 2007

Interim Guidelines for Lower Basin Shortages and Coordinated Operation of Lake Powell and Lake Mead (“2007 Guidelines”). We appreciate your willingness to make Department of Interior (“Interior”) staff available to our efforts. The States intend to take you up on your offer to provide technical assistance to stakeholders developing alternatives. As we work through alternative development, we will keep you informed, and hope to include you in the later stages of development. Given the breadth and depth of such research, we appreciate the extension of time to complete the development of an alternative as noted in Glen W. Knowles April 24, 2012 3:54 PM e-mail and in your May 10 letter. The States are working diligently to develop this alternative for consideration by the July 2, 2012 extended deadline.<sup>1</sup>

As part of the States’ effort to support Interior in the development of the LTEMP EIS, technical representatives for the States attended the Flagstaff Meeting to learn the details of the preliminary alternative concepts. In particular, the States were interested in understanding how the science has been and may continue to be synthesized to inform the alternative development process. Based on your comments and the public discussions at the Flagstaff Meeting and your subsequent correspondence, it appears the co-lead agencies were also anticipating the States and other stakeholders to provide meaningful feedback on the very preliminary alternative concepts. The States, however, were not yet in a position to take a stance on the elements of the alternative concepts for the reasons that follow:

- 1) **Scope:** The breadth of uncertainties acknowledged at the Flagstaff Meeting make it difficult to develop a well defined scope of work for the EIS, and has inhibited the States from knowing the most significant resource issues that should be considered in the EIS analysis. See *e.g.*, *CEQ Final Guidance*, 77 Fed. Reg. 14473, 14476 (March 12, 2012). That said, the States very much appreciate the co-lead agencies identifying certain “side boards” during the Meeting, which include the fact that the EIS: (a) will not consider dam removal; and (b) will not affect the annual amount of water that moves between Lake Powell and Lake Mead, as determined by the “Law of the River” and the 2007 Guidelines. It is helpful for the States to know that nothing in the LTEMP EIS process is intended to affect water allocation among the States or the Secretary of the Interior’s responsibilities related to water deliveries for allocation, appropriation, development and exportation.
- 2) **Litigation:** Ongoing litigation concerning operation of Glen Canyon Dam limits the States’ ability to openly discuss, brainstorm, or comment on the record about the alternative concepts at this time.

---

<sup>1</sup> Although the co-lead agencies have extended the time for submitting alternatives to July 2, 2012, the LTEMP EIS website continues to erroneously indicate that alternatives for the LTEMP will be decided and publically announced by the end of May 2012.

- 3) **States' Process:** As mentioned above, the States are in the midst of trying to develop a joint proposal for a balanced EIS alternative. Stating opinions and positions for the record regarding the elements of the preliminary alternative concepts could undermine our coordination process.
- 4) **Timing:** The States appreciate Interior's efforts to be transparent and take intermediate steps not normally part of the NEPA process. Public outreach on development of the LTEMP EIS is very important, and the States understand the difficulty in promulgating useful information in a timely manner. However, dissemination of a narrative outlining preliminary alternative concepts less than a week prior to the Flagstaff Meeting did not allow the States adequate time to formulate meaningful feedback.

"Alternatives are the heart of the EIS process." 40 C.F.R. § 1502.14 (2011). The States remain committed to contributing to Interior's LTEMP EIS process by developing and submitting, with technical assistance by Interior, a balanced alternative that results in the best possible combination of benefits to key resources based on the best available scientific information. We would welcome any information that the Department could share about the Department's proposed screening criteria for evaluating the different alternatives. Toward these ends, the States welcome the grant of an extension of time until July 2, 2012 to complete the alternatives development process and appreciate Interior's commitment to ensure adequate time is given to develop meaningful alternatives. Should you have any questions or concerns, please do not hesitate to contact any one of the State representatives at your earliest convenience. In the meantime, the States look forward to coordinating with the co-lead agencies in the very near future to continue furthering the LTEMP EIS process.

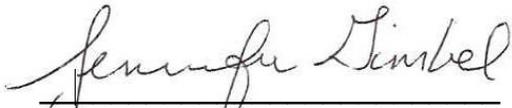
[Signatures on following page]



Sandra A. Fabritz-Whitney  
Director  
Arizona Department of Water  
Resources



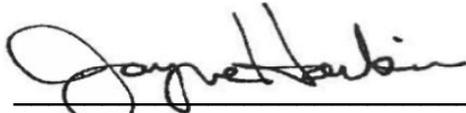
Dana B. Fisher, Jr.  
Colorado River Commissioner  
Colorado River Board of California



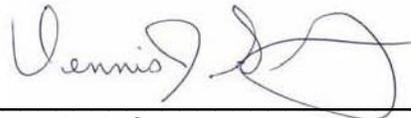
Jennifer Gimbel  
Director  
Colorado Water Conservation Board



Patricia Mulroy  
General Manager  
Southern Nevada Water Authority



Jayne Harkins  
Executive Director  
Colorado River Commission of  
Nevada



Dennis J. Strong  
Director  
Utah Division of Water Resources  
Utah Interstate Stream Commissioner



Estevan Lopez  
Director  
New Mexico Interstate Stream  
Commission



Patrick Tyrrell  
Wyoming State Engineer



Don A. Ostler  
Executive Director  
Upper Colorado River Commission

## Briefing Document...

# Colorado River Basin Salinity Control Program

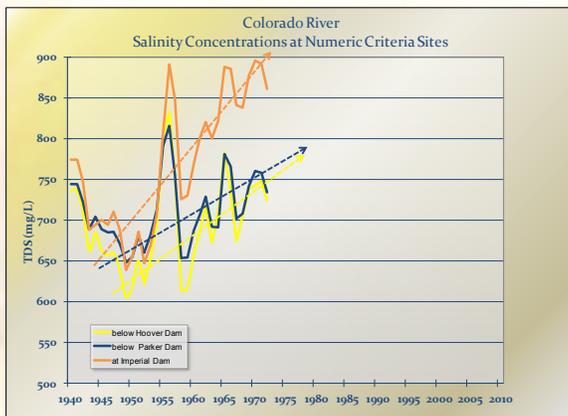
### Background

The Colorado River flows more than 1400 miles from its headwaters in the Rocky Mountains through portions of seven states and the Republic of Mexico before it discharges into the Gulf of California. Through natural and man-induced causes, it picks up and dissolves salt along its path from about 50 mg/L at its source to nearly 850 mg/L (present concentrations) as it passes from the United States into Mexico.

Historically nearly 10 million tons of dissolved salts have passed down the river annually below Hoover Dam. The significant salt load creates environmental and economic damages to its users. The Colorado River is used by approximately 35 million people for domestic and industrial uses in the United States and is used to irrigate approximately 4 million acres of land.

Modeling by Reclamation shows that the quantifiable damages from high salinity water are several hundred million dollars per year to U.S. users with projections that damages would rise to more than five hundred million by 2030 if the Program were not to continue.

The early 1970s saw significant concern by US water users over the increasing Colorado River salinity concentrations, as well as issues between the United States and Mexico over the quality of water being delivered to Mexico pursuant to the treaty between the countries. These concerns, coupled with the passage of the Clean Water Act amendments in 1972 and concerns over EPA mandating state-line water quality standards, led the seven Colorado River Basin states to work with Interior agencies, the State Department and Congress in passage of the Colorado River Basin Salinity Control Act (Act, 1974). Now,



nearly four decades later, this unique partnership of federal and state agencies continues to work cooperatively with hundreds of local companies and thousands of individual water users to control the salinity levels of this major river while allowing development and usage of its waters pursuant to the Colorado River Compact. The salt load of the Colorado River has now been reduced by about 1.2 million tons annually, but continuance of the program is required to offset what otherwise would be increases in salinity levels.

## Sources of Salinity

Much of the Upper Colorado River Basin is underlain by geologic formations composed of sediments which were deposited or precipitated in ancient inland seas and water ways which concentrated salts in these formations. The passing of water through these formations or their derived soils, either naturally or through human activity, dissolves and mobilizes these salts. EPA has identified that 62% of the salt load of the Colorado River above Hoover Dam comes from natural sources. With the significant federal ownership in the Basin, most of this comes from federally administered lands. Human activity, principally irrigation, adds to the salt load of the Colorado River. Further, natural and human activities concentrate the dissolved salts in the River. Such activities include out-of-basin exports, crop and other consumptive uses, phreatophytic evapotranspiration and evaporation from reservoir surfaces.



## Colorado River Salinity Standard

In 1974 EPA adopted, and in 1975 the seven Colorado River Basin states adopted, a salinity standard for the Colorado River. That standard is composed of numeric criteria for total dissolved solids and a plan of implementation to meet the criteria. The numeric criteria were selected as the 1972 salinity levels at the three Lower Basin monitoring locations: below Hoover Dam, below Parker Dam and at Imperial Dam. The Plan of Implementation is designed to keep the average annual flow-weight salinity concentration at or below the 1972 levels while allowing continued use and development of waters upstream. In 2011 the seven Colorado River Basin States reviewed and adopted a revised standard with an updated Plan of Implementation. The Plan of Implementation calls for the creation of an additional 644,000 tons of annual salinity control practices by 2030.

### Program Partners

Department of the Interior

Bureau of Reclamation\*

Bureau of Land Management\*

US Geological Survey

Fish and Wildlife Service

Department of Agriculture

Natural Resources Conservation Service\*

US Environmental Protection Agency

State of Arizona

State of California

State of Colorado

State of Nevada

State of New Mexico

State of Utah

State of Wyoming

Literally hundreds of water districts, water user organizations and canal and ditch companies, as well as thousands of individual water users and producers.

\* Implementing agency

## Program Implementation

Implementation of the Program occurs principally through off-farm irrigation water delivery improvements implemented through Reclamation's Basinwide Program or on-farm irrigation improvement practices implemented through NRCS' Environmental Qualities Improvement Program (EQIP). Additional, salinity control is achieved through BLM practices and administration of NPDES permits by the states. Reclamation's Basinwide Program is a grant program under a funding opportunity announcement every two or three years. Potential participants make application to Reclamation and awards are granted based on cost-effectiveness and other factors. Most applications consist of canal and ditch lining or piping practices. Annual appropriation is about \$7 million. Under EQIP, NRCS assists producers with improvements to their on-farm irrigation practices – generally improving flood irrigation systems or providing sprinklers in the form of side rolls or center pivots. Reduced seepage from canals and laterals or reduced deep percolation from farm fields decreases the amount of dissolved salt which seeps to the Colorado River and its tributaries.



## Cost Share

The Act requires that the states cost share up front 30% of the total cost of the practices implemented by Reclamation and NRCS. For example, if Reclamation were to implement \$10 million in practices under its Basinwide Program, then \$7 million would come from appropriated dollars and \$3 million would come from cost-share dollars. Alternatively said, the cost-share dollars are three-sevenths of the appropriated dollars (or 43%). That means that for every dollar appropriated to the Program, whether to Reclamation or NRCS, an additional 43 cents of cost share is added to the effort. It is important to remember that the required cost-share dollars are on a percentage of the appropriated dollars. Therefore, if the appropriated dollars are reduced, the cost share will automatically be reduced. In addition to the state cost-share dollars, under NRCS' EQIP, producers often contribute about 25% of the total cost of the improvements. Under Reclamation's Basinwide Program, applicants often expend meaningful dollars to buy down their projects to make their proposals more cost-competitive.

## Program Needs

### Reclamation's Basinwide Program

- Increases in funding levels to keep current with program needs and to integrate efficiently with NRCS' EQIP efforts

### NRCS' EQIP

- Continuation of present funding levels and technical assistance to assist producers to implement and maintain practices

### BLM

- Development of "a comprehensive program for minimizing salt contributions to the Colorado River from lands administered" by BLM and sufficient funding to implement such

## Legislative History

1974 PL93-320

- Colorado River Basin Salinity Control Act (Act)
- Title I deals with waters below Imperial Dam and the US commitment to Mexico
- Title II created the Colorado River Basin Salinity Control Program and directed the Secretary of the Interior to implement salinity control projects

1984 PL 98-569

- Authorized the Secretary of Agriculture to establish a voluntary cooperative salinity control program
- Directed the Secretary of the Interior “to develop a comprehensive program for minimizing salt contributions to the Colorado River from lands administered by the Bureau of Land Management”

1995 PL 104-20

- Changed Reclamation’s program to the Basinwide Program to implement salinity control through competitive grants rather than large Reclamation projects

1996 PL 104-127

- Combined the USDA Colorado River Basin Salinity Control Program with three other programs under EQIP
- Authorized up-front cost sharing

2008 PL 110-234

- Created the Basin States Program through which the cost-share dollars are to be expended

## Colorado River Basin Salinity Control Forum

The Colorado River Basin Salinity Control Forum was created by the seven Colorado River Basin states in 1973 to act as a common voice for the states on salinity matters and to coordinate with federal agencies in the implementation of the Program. Forum membership consists of appointees from each of the governors of the Colorado River Basin states and includes water quantity and water quality agency leads and representatives from major water user organizations.

**Don A. Barnett**  
Executive Director

106 W. 500 S., Suite 101  
Bountiful, Utah 84010  
(801) 292-4663  
(801) 524-6320 (fax)  
dbarnett@barnettwater.com



*Colorado River Basin*  
**SALINITY  
CONTROL FORUM**