



Southwest Wildlands

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Bureau of Reclamation, submitted via email (crbpost2026@usbr.gov)

Here we present Southwest Wildlands' (SWW) comments on the Bureau of Reclamation's Post-2026 *Operational Guidelines and Strategies for Lake Powell and Lake Mead – Draft Environmental Impact Statement (2026)*. SWW is a not-for-profit 501(c)(3) conservation organization whose mission is to protect and restore the species and ecosystems of the Grand Canyon ecoregion and elsewhere in southwestern North America. For the past three decades our leadership has focused on providing critical advisement and on-the-ground assistance to federal and state agencies, Tribes, and the public on options and actions to improve water and other natural resources management and the bio-cultural integrity of the Southwest. Since 2002 our staff has been honored to participate in the Glen Canyon Dam Adaptive Management Program, advising the Secretary of the Interior on dam and non-flow management options to better balance hydroelectric power and environmental tradeoffs. With this experience we feel well-qualified to comment on the Draft Post-2026 Guidelines.

The Reclamation's Draft Guidelines for Colorado River water resources management are proposed to extend over the next two decades, into an era of enormous uncertainty and increasing risk to water supply sustainability. The purpose of these guidelines is to "...provide more robust operating provisions than [do] the current guidelines to address the continued loss of storage and the potential for increasing severity of drought and low runoff conditions" (p. 1-2). However, we regard as dubious 1 the footnoted statement that the purpose of the guidelines is also "... to identify and implement actions to ensure Glen Canyon Dam and Hoover Dam continue to provide downstream water releases as designed and intended" (p. 1-2), given that the conditions under which those prior management scenarios were developed may no longer apply. As such, and for the guidelines to meet the fundamental challenge of sustainable water supplies management, the plan likely requires a fundamental re-invention of basin water supply practices, policies, and managerial timeframes.

While we found the document to be well-written and carefully considered within its traditional constraints, we do not see that any of the options presented are likely to succeed in reducing the threats of water insecurity in the face of integrated weather pattern alteration, related to increasing temperatures and reduced precipitation in the face of increasing consumptive demands. Therefore, we appreciate Reclamation's recognition that if inflow conditions "...do not improve, achieving a balance is more difficult, and, under critically dry futures, even large and unprecedented reductions may not be enough to stabilize storage." The Basin's water supplies are, indeed, at enormous risk, and protection of the nation's two largest reservoirs and the ecological integrity of Grand Canyon between them is of paramount importance. Below we present questions and comments about this document:

Why is the Grand Canyon Protection Act (GCPA, 1992) so little-referenced throughout the document, and not even mentioned in the Executive Summary? The Colorado River is not simply an engineering pipeline for the conveyance of water from the Upper to the Lower Basin. As the river flows through Grand Canyon, the

world's most iconic landscape and a World Heritage Site, it provides nationally and globally significant habitat, cultural, and socio-economic benefits to a wide array of species, cultures, and visitors. The GCPA clearly requires protection of the values for which Glen Canyon National Recreation Area and Grand Canyon National Park were designated:

The Secretary shall operate Glen Canyon Dam in accordance with the additional criteria and operating plans specified in section 1804 and exercise other authorities under existing law in such a manner as to project, 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 natural and cultural resources and visitor use.

Thus, as an essential element of the Law of the River the GCPA is, in the eyes of the public and the world, a requirement for enhanced protection of river resources in Grand Canyon. We hold that protection of Grand Canyon is core to, not peripheral to, Colorado River water management, to the greatest extent possible within the constraints of existing laws. Because Grand Canyon lies between the nation's two largest reservoirs, the GCPA elevates environmental protection of natural resources and processes to an equal footing with management of water supplies and federal trust responsibilities to Native American tribes.

The five purposes of this document described on P. 1-7 are to:

- a. Update and expand management guidelines for Colorado River reservoirs, particularly for the coordinated operation of Lake Powell and Lake Mead
- b. Provide Colorado River water users a greater degree of predictability with respect to annual water availability in future years under anticipated increasing variability, low runoff, and low-reservoir conditions
- c. Provide additional mechanisms for the conservation, storage, and delivery of water supplies in Colorado River reservoirs
- d. Provide new or enhanced opportunities for Basin Tribes to benefit from their water rights
- e. Provide flexibility to build resilience and accommodate future needs and growth that are supported by Colorado River water supplies, including the integration of unquantified tribal water rights once they are resolved.

We regard purpose (a) as achievable, but only through full recognition and re-evaluation of the consequences to society of intensifying aridification and expanding uncertainty, and likewise purpose (b) through development of well-regulated policies for sustainable Colorado River water management. The latter will require sufficient political will at the state level to allow for essential and potentially severe curtailment of use with substantial expansion of conservation, not just to support further development but for actual reservoir volume management. However, such commitment and determination remains outstanding and is unlikely to manifest until the severity of the water supply crisis reaches a state that substantially affects the

public. Sustainable delivery of Colorado River water to the Lower Basin is highly unlikely to be achieved through 'Intentionally Created Surplus' or other measures, meaning that existing options in dam operations are, in simplest terms, insufficient to guarantee the future sustainability of water supplies. Water "Day Zero" water supply failures occurred in both Australia and in South Africa early in this century, and we strongly recommend that Reclamation explore those examples as case studies, with the hope of improving understanding of the consequences of unsustainable water supplies management, and subsequent options.

The additional mechanisms called for in (c), reviewed in Reclamation's review of the 2007 Guidelines have been useful, but inadequate in the context of significantly increased aridification, as demonstrated by the increased risk to system function. To reach greater adaptive capacity will require more managerial flexibility, called for in (e), but such nimbleness has been limited by antiquated and inadequate prior policy. Without modifying the 1922 Colorado River Compact strictures to accommodate a "Day Zero" scenario, Reclamation seems unlikely to meet its long-term obligations of water supplies sustainability and water security in the Colorado River basin.

Following on the above, the document acknowledges that the "...2007 Interim Guidelines have not sufficiently reduced risk" (p. 1-6). Despite Reclamation's review of the 2007 Guidelines, this is an admission of the failure of Colorado River water law. The Interim Guidelines were based on the same needs and restrictions as are those of the proposed draft 2026 Guidelines. Admission of failure of the 2007 Guidelines invites speculation that continuation of the same logic in this document will continue to fail, particularly because environmental conditions have worsened dramatically over the past two decades and particularly in the past decade. Again, this points to the need for a thorough and more realistic review and modification of the 1922 Compact.

It is not clear how (d) Native American Tribes with water rights to the Colorado River stand to benefit from the alternatives presented. The long delays in Tribal water rights resolutions, and the apparent reluctance of some of the states in which their reservations are located to adjudicate Tribal water claims indicates reluctance to honor the public trust to which Tribes are entitled.

The flexibility needed to manage Upper versus Lower Basin water delivery is the same as that expressed in Article 10 of the 1944 Treaty with Mexico:

In the event of extraordinary drought or serious accident to the irrigation system in the United States, thereby making it difficult for the United States to deliver the guaranteed quantity of 1,500,000 acre-feet (1,850,234,000 cubic meters) a year, the water allotted to Mexico under subparagraph (a) of this Article will be reduced in the same proportion as consumptive uses in the United States are reduced.

Decisions on reduction of international water delivery are made not on decadal time frames, but annually or biennially, a flexibility that is realistic and recognizes the erratic nature of precipitation variability under an increasingly aridifying climate. Such responsiveness is needed to resolve differences between the hopes for precipitation

embedded in the 1922 Compact and subsequent policies with the realities of erratic and increasingly arid conditions in the Southwest.

We see no mention of groundwater management in this document. Although groundwater is regarded as a State management issue, nearly half of the Colorado River is groundwater and therefore groundwater management becomes a federal water management issue. Further, as aridification increases in intensity, irreplaceable groundwater supplies are being over-extracted by an estimated five times multiplier versus replenishment, resulting in a long-term loss of the river basin's last source of fresh water. It is time to include groundwater supplies in interstate water management considerations.

Discussion of Proposed Alternatives

1. **The *No Change Alternative*** is untenable due to present natural and policy-based restrictions, as well as non-realistic estimates of water availability.
2. **The *Basic Coordination Alternative*** was proposed to be implementable without agreements among Basin water users and would: a) require a greater level of federal political will than is presently apparent, and b) would result in state-to-federal legal contests, further reducing its likelihood of success, as recognized on p. 2-11, especially absent the Near-Term SEIS section 6e mechanism.
3. **The *Enhanced Coordination Alternative*** is based on proposals and concepts from specific Basin Tribes, federal agencies (DOI, DOE-WAPA), and other stakeholders to protect critical infrastructure, while benefitting key resources, such as environmental, hydropower, and recreation, through an approach to distributing storage between Lake Powell and Lake Mead to ensure capacity to support water demands. The establishment of "protected pools" in both Powell and Mead Reservoirs could result in protected stage elevations in both reservoirs; however, if this alternative is selected we recommend increasing the volume of the protected pools to at least those proposed in Alternatives 4 and 5 to assure adequate protection during long-term drought, as well as sufficient head for efficient hydropower production.
4. **The *Maximum Operational Flexibility Alternative*** is a more compelling solution, guaranteeing protection of reservoir levels. It recognizes circumstances in which sufficient Upper Basin water is simply not available, and therefore is more realistic in its approach.
5. **The *Supply Driven Alternative*** is based on regulation based on the natural inflows into Lake Powell, with annual Glen Canyon Dam releases determined based on the preceding 3-year average natural flow at Lees Ferry, and with Lower Basin deliveries determined based on Lake Mead elevation. The use of a 3-year, rather than a decadal, average inflow creates a far more realistic estimate of available water, given the increasingly erratic precipitation patterns now characterizing southwestern climate.

In summary of the above Alternatives, we see compelling elements in each of Alternatives 3, 4 and 5, and we suggest that Reclamation integrate those three options into a single Alternative to provide the best guarantee of Colorado River flow

sustainability, water security, and operational flexibility. A 3-year flow planning horizon seems reasonable to us as climate conditions beyond a window of 3 years are overly speculative. We realize this shortened planning horizon would be challenging for hydropower marketing, but it would limit mistakes due to unexpected climate variation.

Additional Recommendations

We provide the following suggestions for improving dam operations to better protect the Glen and Grand Canyon segments, some of which were summarily rejected in these draft guidelines. These elements merit attention to support not only the GCPA, but also sustainable water management strategies, and therefore should be incorporated into the final Post-2026 Plan. These include:

1. Full support for US Geological Survey monitoring of key resources and research on key scientific questions in Colorado River management in Glen and Grand Canyons, in keeping with the Grand Canyon Protection Act and the Glen Canyon Dam Adaptive Management Program.
2. Continuing conduct of planned high flow events to manage Grand Canyon sand mass balance to maintain sandbars and associated habitats.
3. Continuing support for Tribal participation and protection of cultural resources and values throughout both the Upper and Lower Basins.
4. Involvement of Tribal, recreation, and environmental voices, rather than just federal, state, and hydropower production and marketing voices, in Annual Operating Plan decisions and decisions about specific flow events, like planned high flow events through Grand Canyon.
5. Re-designing equalization flows between the two dams to limit sand export (e.g., beginning equalization flows with a pre-emptive high flow event to store sand at higher elevations in the channel).
6. Increasing water conservation by reducing winter releases from Glen Canyon Dam. Climate change is reducing hydropower demand for winter heating. This may involve more regulation of winter river trips through Grand Canyon, but such trips are in relatively low demand.

Thank you for the opportunity to express our concerns and priorities for improving management of the Colorado River. We trust that Reclamation will take advantage of comments intended to improve water management overall, and to ensure the Glen and Grand Canyons segment is as well-protected as possible, in accord with the Grand Canyon Protection Act, as well as the Law of the River. Increasing managerial flexibility is essential for ensuring water supply sustainability and security in the face of an increasingly erratic climate future.

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