August 11, 2023

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Colorado River Post-2026 Program Coordinator  
Bureau of Reclamation  
Attn: Post-2026 (Mail Stop 84–55000)  
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Via email: CRBpost2026@usbr.gov

Dear Ms. Erath:

With this letter, the National Audubon Society (Audubon) is providing comments for the U.S. Bureau of Reclamation’s (Reclamation) scoping process on the development of Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead (as published in Federal Register Notice – 87 FR 39455 on June 16, 2023). Audubon appreciates the opportunity to provide comments as the Colorado River, lifeblood of the American West, has outsized significance for wildlife. Audubon protects birds and the places they need, today and tomorrow, throughout the Americas using science, advocacy, education, and on-the-ground conservation. Our 1.8 million members care deeply about birds, and these comments are submitted on their behalf. Audubon has also joined partners in other comments and this letter is meant to be complementary.

Audubon is deeply concerned about current Colorado River conditions, which are a product of the combined impacts of an extended drought – exacerbated by the climate crisis – and governance that has been unable to reduce water uses fast enough to avoid unacceptable risks to water supply reliability for birds and people. This past winter provided abundant precipitation in the Colorado River Basin, yet system reservoirs remain more than half empty. Forecasts indicate the basin will continue to dry and the water supply will continue to shrink. Current operating guidelines are not adequate to stem the continued decline of Colorado River reservoirs to the point of crisis, and that risk is wholly unacceptable for people and nature.

In addition to the climate crisis, we are in the midst of a biodiversity crisis. One million animal and plant species are at risk of extinction, many within decades, more than ever before in human history.¹ North American bird populations have declined by three billion, a 30% decline, since 1970.² The biodiversity crisis is largely driven by habitat loss, and Colorado River management has an outsized impact on habitats in the arid West. For example, the riparian forest that lines the waterways of the Colorado River Basin provides critical habitat for birds, including 400 species along the Lower Colorado River alone. Scores of dams and diversions have altered river flows, with the result that native tree species are unable to thrive and invasive shrubs grow in their place, diminishing habitat value. With less native habitat available, at least six breeding bird species

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that rely on the Colorado River Basin, including the Bell’s Vireo, Summer Tanager, Yellow-breasted Chat, Yellow Warbler, Southwestern Willow Flycatcher, and Western Yellow-billed Cuckoo, have experienced significant population declines.

Reclamation needs to adopt Colorado River management that responds to both crises. Audubon urges Reclamation to consider that post-2026 Colorado River operating guidelines are fundamentally a component of regional adaptation to climate change. Colorado River Basin communities, economies, and ecosystems need to become more resilient to climate impacts. This will require large-scale efforts. Specifically, we urge Reclamation to consider the following priorities in defining the purpose and need as well as the scope for Colorado River management post-2026:

1. Climate change will continue to erode the stability of the Colorado River water supply. Developing new management rules requires consideration of the hydrologic extremes that may be generated by the changing climate, and that these extremes are likely to evolve over time.

2. The stability of the Colorado River water supply is of paramount importance, both to water users who value certainty and to the environment, which depends on the political will of decision-makers who will be challenged to prioritize environmental resources in times of water supply crises. Reclamation’s metrics for the Colorado River water supply should prioritize system stability over maximizing deliveries to water users.

3. There are a number of Colorado River-dependent habitats with outsized importance for birds. Reclamation’s metrics for evaluating management action alternatives must be able to assess impacts to: habitats managed for endangered species such as the Upper Colorado River Basin and San Juan Recovery Implementation Programs and the Lower Colorado River Multi-Species Conservation Program; National Wildlife Refuges on the Colorado River and its tributaries; the Grand Canyon; the Salton Sea; the Cienega de Santa Clara; and habitat values of irrigated agriculture (which provides forage in many locations where native vegetation has disappeared).

4. Reclamation’s study process should include consideration of actions designed to improve the health and sustainability of Colorado River-dependent habitats. For action alternatives that degrade the health and sustainability of these habitats, Reclamation should, as a component of action alternatives, define and evaluate the impact of habitat mitigation.

5. While there will be limits to the scope of Reclamation’s post-2026 Colorado River guidelines, these guidelines should anticipate parallel processes such as extension of the Upper Basin Drought Response Operations Agreement, the successor to Minute 323 (the U.S.—Mexico Colorado River agreement), durable water conservation, investment in restoration and protection of watershed health, and others. If designed in tandem, the post-2026 Colorado River guidelines and these parallel processes could provide greater water supply reliability for human uses and for nature.

6. It is imperative that Tribal Nations be involved in crafting workable solutions with the federal government and the states and it is time to correct the historical wrong of Tribal exclusion.

7. We will need to bring all expertise and interests to bear to meet the challenges we face going forward. Reclamation’s NEPA process must be transparent and inclusive to ensure the outcomes are truly adaptive for all stakeholders.

Below we provide additional details on these priorities and identify additional concerns. Thank you for inviting this input.
1. PROCESS

Be transparent – Reclamation’s decision process must provide public access to options under consideration, evaluation criteria, and decisions at every step along the way. The changes in Colorado River hydrology are so large, with such far-reaching consequences for all water uses and potentially for other river basins, that the historic practice of back-room decision-making must be replaced with clear and thorough information-sharing throughout the decision process. For example, Reclamation could host monthly webinars discussing the status of negotiations, emerging reservoir and river management ideas, and updates regarding impacts analysis, and follow these webinars with opportunities for public comment. If the public is informed about these and other relevant issues on a regular cadence, Reclamation will have the opportunity to hear public input on a regular basis, rather than waiting for the infrequent, major milestones of the draft and final Environmental Impact Statements.

Be inclusive – Many historic laws, compacts, and treaties that form the foundation of Colorado River management were adopted when institutionalized exclusion of some peoples and interests, particularly Tribal sovereigns who have lived in the basin since time immemorial, was common. Reclamation’s process must reverse those inequities and include representatives of Tribal sovereigns with Colorado River water rights, both settled and unsettled. Audubon cannot speak for the Colorado River Basin’s Tribes, but we urge Reclamation to listen to the Tribes’ suggestions for inclusion in the decision-making process.

Prioritize Mexico’s role in Colorado River management – The benefits of increased collaboration with Mexico in recent treaty agreements (Minutes 316, 319, and 323) are broadly recognized, including increased supply reliability for all water users, increased water conservation, and binational collaboration to protect and restore habitat in the Colorado River Delta. While Reclamation must allow the International Boundary and Water Commission (IBWC) to lead Colorado River negotiations with Mexico, Reclamation should prioritize coordination with, and capacity support for, the IBWC to ensure the United States can prioritize future collaborative management with Mexico. Specific suggestions include:

- provide bilingual specialists dedicated to working with IBWC in the binational process to define management options for evaluation and metrics for impact assessment;
- in partnership with Mexico, evaluate the potential for a revised salinity agreement to result in conserved water for Lake Mead, and the potential for revised groundwater agreements to increase supply reliability for water users in both countries;
- ask Mexico for an inventory of projects that could conserve water (if needed, provide resources to develop this inventory); and
- ask Mexico for an inventory of needs related to Colorado River Delta habitat restoration including the dollars and water needed to extend and expand the benefits created under Minutes 319 and 323.

2. PURPOSE AND NEED

Adopt a broader “purpose and need” for the Post-2026 Operational Guidelines that are responsive to developments since the 2007 Guidelines were adopted. President Biden’s 2023 Executive Order on Environmental Justice states: “To fulfill our Nation’s promises of justice, liberty, and equality, every person must have clean air to breathe; clean water to drink; safe and healthy foods to eat; and an environment that is healthy, sustainable, climate-resilient, and free from harmful pollution and chemical exposure” (emphasis added). Reclamation historically used enormous federal financial subsidies to promote development of the Colorado River and spur economic growth in the Western United States. Today, it is broadly acknowledged
that this development also created significant negative outcomes for the region’s Tribes as well as birds and other wildlife. As the agency now pivots to Colorado River management adaptive to climate change, the agency should adopt a purpose and need for management that improves the reliability of supplies for everyone and everything that depends on access to clean water, with emphasis on correcting past inequities.

Reclamation’s purpose and need statement for development of the 2007 Colorado River guidelines\(^3\) was narrowly focused, in essence to:

A. improve Reclamation’s management of the Colorado River by considering the trade-offs between the frequency and magnitude of reductions of water deliveries, and considering the effects on water storage in Lake Powell and Lake Mead, water supply, power production, recreation, and other environmental resources;
B. provide mainstream United States users of Colorado River water, particularly those in the Lower Division states, a greater degree of predictability with respect to the amount of annual water deliveries in future years, particularly under drought and low reservoir conditions; and,
C. provide additional mechanisms for the storage and delivery of water supplies in Lake Mead.

Audubon suggests consideration of the following for the purpose and need for post-2026 Colorado River guidelines:

A. improve Reclamation’s management of the Colorado River by considering management that does not exclude an equitable and sustainable supply of clean water to support vulnerable communities;
B. improve Reclamation’s management of the Colorado River by considering management that is protective of remaining habitats;
C. improve Reclamation’s management of the Colorado River by anticipating future flows impacted by climate change;
D. consider new governance and stakeholder processes that operate on a timeframe that allows adaptation to conditions that may evolve beyond the scope of what is considered in post-2026 guidelines, for example with biennial public review of the operating guidelines’ adequacy in the context of current hydrologic conditions;
E. clarify how management of reservoirs above Lake Powell factor into water availability for the Basin, and consider how their operations might include efforts to improve aquatic and riparian habitats;
F. consider trade-offs between reliability of the Colorado River water supply stored in Colorado River reservoirs and the quantity of Colorado River water deliveries to water users, recognizing the effects of unpredictable water supplies on regional economies, vulnerable communities, and wildlife habitats;
G. provide all users of Colorado River water a greater degree of predictability with respect to the amount of annual water deliveries in future years, particularly under drought and low reservoir conditions;
H. provide additional flexible mechanisms that provide or support incentives to conserve consumptive uses of water throughout the basin; and

I. define mitigation for avoidable impacts to habitats and natural systems.

3. SCOPE

The geographic scope of the action alternatives need not be limited to the scope of the 2007 guidelines, but rather should be defined as necessary to accomplish the purpose and need.

The geographic scope of the impact analyses must be broad enough to capture effects wherever they occur, including at resources reliant on Colorado River water and “downstream” from Colorado River water uses, such as the Salton Sea (downstream from irrigated agriculture in the Imperial Valley) and the Cienega de Santa Clara (downstream from irrigated agriculture in the Wellton-Mohawk Irrigation and Drainage District).

Other resource impact analyses should include (but not be limited to):
- Water quality;
- Reclamation’s ability to comply with the requirements of Minute 242;
- Biological resources in the Colorado River and tributaries including riparian species and habitats;
- Ability of water users to comply with requirements of the Endangered Species Act;
- Impacts of fallowed agricultural lands, including dust emissions and public health as well as avian habitat loss;
- Tribal assets including lands and waters and cultural resources;
- Cultural resources including native plants used by Tribes to sustain traditional practices;
- National Parks, National Wildlife Refuges, state parks, and other lands with protective designations;
- Socioeconomic and environmental justice considerations including farm labor;
- Recreational resources;
- Hydropower;
- Emissions of carbon and other gases driving climate change; and
- Cumulative impacts.

The 2007 guidelines were given a temporal scope of 20 years, with a built-in provision for re-consultation if the water surface elevation at Lake Mead dropped below 1025’ msl. History shows that the federal government, Colorado River Basin states, and water users found it necessary to adopt management measures to supplement the 2007 guidelines before the re-consultation provision was triggered, due to concerns about rapidly declining water storage. Audubon suggests that post-2026 guidelines include provisions for a regular process for assessing their adequacy during the period they are in effect. That could be incorporated as an expected, calendared assessment, or as a trigger for assessment such as the volume of water in system storage.

4. OTHER CONSIDERATIONS

Use sound science – Reclamation’s decision process must be rooted in the best available science and reliable data, both regarding the range of future conditions in consideration of climate change impacts, as well as regarding the impacts of changes in river management.
Enable decision-making under uncertain future conditions – As stated in Reclamation’s Federal Register notice, climate change makes future hydrologic conditions on the Colorado River unknowable. Reclamation has long relied on a probabilistic approach to projecting future hydrology, which has proven inadequate to capture the extent and pace of climate change impacts over recent decades. Reclamation’s decision process will create a more sustainable operating framework – and a more sustainable Colorado River – if it considers hydrologic futures far more extreme than could be captured in a data-set premised on a river that provides a mean annual average of 11 million acre-feet, or 9 million acre-feet, or even 7 million acre-feet. The basin needs an operational regime that will stand up to the fullest range of future conditions imaginable.

Aim for management that avoids crises – Failure in this realm will perpetuate a crisis-based decision environment and continued uncertainty for all water users. In a perpetual crisis environment, water shortages – including in some cases potential loss of all surface water supply – will continue to threaten the economies of Western communities. In times of water supply crisis, water leaders at the local, state, and federal levels will have less latitude and time to consider impacts to vulnerable communities and environmental resources, as their attention will necessarily be directed to the largest water-shortage-related economic impacts. Rather than deferring decisions about shortage-sharing and reservoir management in the driest of future conditions, as was done in the 2007 Interim Guidelines, Reclamation’s post-2026 management framework should provide certainty so that local, state, and federal water managers can create plans for those future conditions now, while they have more time to consider a full range of options and impacts.

Consider water supply reliability – Reclamation’s evaluation of a future Colorado River reservoir management framework should consider the benefits of re-filling reservoirs in the near term as a way to increase the reliability of water supplies for all water users. If Reclamation’s impacts analysis emphasizes maximizing volumes of water available for delivery to water users, it may miss the benefit of a more reliable supply.

Evaluate and communicate available reservoir water supplies – Each of Reclamation’s Colorado River reservoirs has a total supply – the total volume of water in the reservoir – and an available supply – the volume of water that a reservoir can deliver downstream in consideration of “dead pool.” Reclamation routinely reports on the total supply (as a percentage of full capacity) at its Colorado River reservoirs and does not routinely report on available supply. In 2022 Reclamation highlighted this discrepancy while making the emergency decision to reduce the volume of water to be released from Lake Powell. All of Reclamation’s analyses, as well as all public communications about Colorado River reservoirs, should clearly communicate the available supply.

In addition, Reclamation should be transparent about any considerations of “paper water” or “miracle water” – in other words considerations of water as if it exists in a location when it does not in fact exist – in the context of modeling reservoir operations and shortages. The use of “miracle water” in the 2012 Colorado River Basin Study obscured water supply deficits in the basin, both in the Upper Basin where Compact delivery deficits were not calculated, and in the Lower Basin, where modeled shortages were based on the assumption that Upper Basin deliveries to the Lower Basin were successfully complying with delivery obligations in the Colorado River Compact. Given the broad public interest in Colorado River water availability under the terms of the Colorado River Compact, it will be extremely important for Reclamation to provide clear and thorough explanations for any modeling assumptions that could potentially obscure these results.

Reclamation should consider operating guidelines that rely on reservoir storage and recent historic hydrology to determine future releases, rather than on projections based on assumptions about future precipitation and climate. Under the 2007 interim guidelines, releases from Lakes Powell and Mead are determined by the prior-
year August 24-month study projection of reservoir elevations and did not adequately stem the decline of Colorado River supplies stored in reservoirs. Reclamation should consider the potential to establish new accounting systems (in conjunction with clear and transparent reporting) that allow water users and federal facility managers greater flexibility in managing water supplies. Improved accounting as an alternative to measuring Compact deliveries at Lee Ferry could enable optimized flows through the Grand Canyon.

**Evaluate the difference between water shortages and voluntary, compensated reductions in water use** – Reclamation and the Colorado River Basin states have gained experience from system conservation pilot projects that date back at least 15 years. When water users engage in voluntary, compensated reductions in water use, the economic impacts are significantly different than when involuntary, uncompensated shortages are implemented, in terms of both the sectors and geographies that engage. A management framework based on voluntary and compensated reductions in water use can avoid shortages to water users least able to adapt to reduced water supplies, such as endangered species and critical urban water uses. Reclamation’s analyses of management options should clearly distinguish these different approaches to reducing water uses in the Colorado River Basin, and evaluate a full range of impacts for both, including how the distribution of reduced water use would differ.

**Consider increased flexibility in Colorado River management** – One often-recognized challenge of Colorado River management is the sheer number of jurisdictions (irrigation districts, municipal water utilities, counties, states, Tribal sovereigns, countries) that share the water resource. Among these jurisdictions are vast differences in water availability, water prices, and economic productivity of water uses. Because of these differences, there are instances where one jurisdiction has invested in water conservation located in another jurisdiction, where such an investment might not otherwise be economically rational. Because water is not perfectly “liquid” in a market sense, Reclamation should consider developing new and expanded tools to promote this kind of flexibility, such as water banks, with appropriate safeguards for third-party environmental and community economic impacts.

**Consider environmental water needs and environmental justice** – Reclamation’s decision should both include management options that intentionally improve freshwater-dependent habitats and the species that rely on them, and also fully evaluate the impacts of all management options on freshwater-dependent habitats and the species that rely on them. In addition, Reclamation must consider management impacts on vulnerable communities.

Habitats and species that depend on the Colorado River are jeopardized, as evidenced by the numerous endangered species designations in the basin, and climate change is further threatening their viability. Reclamation should create and evaluate at least one option for post-2026 management based on improving outcomes for freshwater-dependent habitats and species.

In addition, Reclamation’s analysis should include use of metrics that evaluate how various management options impact freshwater-dependent habitats and vulnerable communities including:

- Upper Basin River habitats, including metrics for spring peak flows and fall base-flows;
- Grand Canyon habitats, including metrics for annual, minimum, and maximum flows;
- Lower Colorado River habitats by reach, including metrics used to establish “covered” conditions in permits obtained through the Lower Colorado River Multi-Species Conservation Program;
• Salton Sea habitats and environmental justice concerns, including inflows, water quality, lake levels, areas of exposed playa, and dust emissions; and
• Ciénega de Santa Clara habitats, based on changes in the quantity and quality of water the United States delivers to these habitats via the MODE canal.

Use both baseline conditions and a no action alternative as points of comparison for proposed action alternatives - The impacts of the climate crisis and the biodiversity crisis in the Colorado River Basin are already evident. While Reclamation is not required to mitigate the impacts of these crises, the agency’s analyses can be a useful way for the public to understand how the Basin is expected to change over time. Reclamation’s evaluation of action alternatives should include comparison to both a baseline and to a no action alternative. The baseline is comprised of the affected environment, a description of the environment as it exists today. The affected environment is essentially a snapshot in time. The no action alternative projects changes to baseline conditions that are not the result of the action alternatives but rather the result of other changing conditions, for example climate change. We urge Reclamation to include analyses that compare action alternatives to the baseline as a way to identify how conditions are expected to change in the Colorado River Basin. Stakeholders need this information to adapt to changing conditions and to understand how the impacts of proposed action alternatives will add to other impacts that will accrue over time.

Define possible mitigation actions that can be evaluated in tandem with the action alternatives – Reclamation’s analyses of proposed action alternatives are expected to show negative impacts to Colorado River-dependent habitats and other environmental resources. We urge Reclamation to define mitigation actions as a component of action alternatives. It will be extremely helpful to understand if and where reasonable mitigation actions are available. Identifying these actions may allow environmental stakeholders to support action alternatives that might otherwise be unacceptable.

Consider how management options will interact with other responses to conditions on the Colorado River – Congress has made unprecedented appropriations in 2021 and 2022 to address Colorado River and other Western river conditions (i.e., through the Bipartisan Infrastructure Law and the Inflation Reduction Act). While we do not yet know the specifics of how these dollars will be used, the appropriations do come with authorizations and guidance, and some investment details will be known as Reclamation evaluates future management options. Reclamation’s analysis would benefit from consideration of these investments (current and future), and Reclamation’s post-2026 management decision should aspire to complement them.

Audubon is deeply appreciative of the opportunity to comment. We urge Reclamation to establish a process for developing a post-2026 Colorado River management framework that results in a resilient water supply and healthy rivers for all life – the people, the birds, and all the creatures that rely on this resource.

Sincerely,

Jennifer Pitt
Colorado River Program Director
cc: Camille Calimlim Touton, Commissioner, US Bureau of Reclamation
    David Palumbo, Deputy Commissioner, US Bureau of Reclamation
    Wayne Pullan, Regional Director, Upper Colorado River, US Bureau of Reclamation
    Jaci Gould, Regional Director, Lower Colorado River, US Bureau of Reclamation