Recommendations for the Next Colorado River Operating Guidelines

A Report by the

2022 Colorado River Water Leaders

WATER EDUCATION FOUNDATION

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Colorado River Water Leaders at Hoover Dam, a stop on the Water Education Foundation's Lower Colorado River Tour in March 2022.

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List of Abbreviations

BIA	Bureau of Indian Affairs
Reclamation	Bureau of Reclamation
IBWC	International Boundary and Water Commission
MAF	Million Acre Feet
MAFY	Million Acre Feet per Year
NPS	National Park Service
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
WAPA	Western Area Power Administration

Introduction and Background

Often characterized as "the hardest working river in the West," the Colorado River Basin is home to 30 Tribes (Colorado River Research Group, 2016), some of the largest metropolitan areas in the United States, rural and suburban communities, a thriving agricultural economy and culture, and ecosystems ranging from high-altitude forests and meadows to desert riparian corridors. The watershed has been the home of Indigenous communities since time immemorial and today spans seven U.S. and two Mexican states and 20 Tribal reservations. The Colorado River also supports 16 million American jobs, generates $1.4 trillion in economic benefits and irrigates nearly 6 million acres of farmland. It is an economic powerhouse integral to the U.S. economy and way of life (W. P. Carey School of Business et al., 2014).

Recent headlines about the dire state of the Colorado River have been inescapable (Fountain, 2022). With reservoirs at historically low levels — threatening power generation, regional and national economies, drinking water supplies and ecosystem health — the river that supports 40 million people in the United States and Mexico is certainly newsworthy. The hotter, drier future anticipated by the changing climate is already a reality, and the Colorado River Basin is ground zero for these effects.

The now-22-year-long drought spurred the creation of the *Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead*, which the Secretary of the Interior approved in December 2007. The Interim Guidelines lay out operating rules for the Basin's two major reservoirs, Lake Powell and Lake Mead, and aim to stabilize reservoir levels, improve certainty for water users and managers and increase flexibility for water conservation and storage. While the Interim Guidelines successfully met many of their stated goals, reservoir storage has continued to decline due to overuse and the ongoing drought exacerbated by climate change (Williams et al., 2022).

The 2007 Interim Guidelines expire at the end of 2025, and a new management framework for the Colorado River Basin must be developed. The Bureau of Reclamation (Reclamation), the federal agency that oversees Colorado River operations, began the guidelines renegotiation process in late June with the release of the Federal Register request for input on the next iteration of the Basin's operating guidelines. With the Colorado River's reservoirs at historically low levels, the ongoing drought and the effects of climate change, the 2026 guidelines renegotiation process provides an opportunity for water users in the Basin to create a framework for a resilient and thriving watershed into the 21st century.

The focus of the inaugural 2022 Colorado River Water Leaders program is the renegotiation of the Interim Guidelines. The 2022 cohort is comprised of 13 water and natural resource professionals from the Upper and Lower Basins of the Colorado River. Participants were selected to represent a diversity of professional competencies and interests, including individuals from agriculture, municipalities, environmental and nonprofit groups, state and local agencies and the federal government.

The vision for the Colorado River Water Leaders program is to assemble a group of early to mid-career professionals to participate in a series of facilitated interactions to encourage the sharing of varying perspectives, experiences and ideas to develop a broader understanding of the Colorado River system and evaluate management challenges with fresh eyes.

In addition to the cohort interactions, each participant is paired with a mentor. Mentors are seasoned policymakers or senior leaders with an environmental group, a tribe or an agency directly responsible for Colorado River management. Mentors and mentees are strategically paired to provide both parties

with unique and potentially new viewpoints. The interactions include an interview and a day-long shadowing component to enable each Water Leader to develop a deeper perspective of the Colorado River.

The culmination of the Colorado River Water Leaders program is the development of this report, which seeks to provide Colorado River water managers and the river community with management suggestions. The focal point of this report is to look specifically at the renegotiation of the Interim Guidelines and provide recommendations for managing the Colorado River post-2026.

The high-level recommendations developed by the 2022 Colorado River Water Leaders include:

- Improving the planning process through increased frequency, communication and engagement.
- Establishing a more holistic approach to systems management that balances water use with available supply and inflows that provides flexibility and allows the system to recover and build resilience.
- Leveraging the political power of the Colorado River Basin to push Congress for large-scale, predictable federal investment.
- Incorporating the environment in the next round of Colorado River operating guidelines.

Key Findings

Process & Planning

The current frequency of review of operations on the Colorado River has not been sufficient to keep up with the quickly evolving hydrologic conditions on the system. A more proactive governance approach is required to ensure greater certainty and adaptability. We propose a new process for reviewing and adopting management and operational guidelines that will include a biennial planning process, the formation of a "Basin States Plus" guidelines consultation committee and hosting "Reclamation Roundtables" to provide more open and broad participation by sectors and issue areas.

Systems Management

Current operations do not reflect the reality of the system and are not adaptable to a wide range of hydrologies. The system needs to reach mass balance, where depletions match available supply and inflows. We propose Lakes Powell and Mead be treated as one reservoir under future water management guidelines. The volume of the two reservoirs (total storage) will guide shortage decisions and inflows will act as signposts for future conditions. Less intense shortage triggers will take place at higher levels of storage and require reductions in consumptive use in the Upper and Lower Basins. Future operations should allow for the potential to modify reservoir operations to adaptively manage a wide range of conditions in an uncertain future.

Federal Funding

The seven Basin states collectively have significant economic and political influence, and should leverage a biennial federal funding package in coordination with the proposed biennial planning process. A consistent federal funding package would provide a needed incentive to encourage innovation, support permanent water reductions and avoid unproductive conflict. Consistent funding will also facilitate restoration efforts throughout the Basin, improving the overall health of the system.

The Environment

Past Colorado River agreements have largely left out the environment. Going forward, environmental benefits should be included as part of future Colorado River negotiations. Ecosystem restoration projects have beneficiaries across sectors, facilitate and encourage broad partnerships among users, and provide ongoing and long-term benefits to the health of the Colorado River, wildlife and water users of all types. Incorporating the environment in the next round of Colorado River operating guidelines will help create a Colorado River Basin that is resilient in the face of climate change, with thriving communities, economies and ecosystems.

Recommendation 1: Improve the planning process through increased frequency, communication and engagement.

Based on research, observation, mentorship, feedback sessions and cohort discussions, we have designed a proposed framework to enhance communication and coordination on the Colorado River.

This Planning Process Proposal is designed to supplement existing coordination and outreach efforts to support the development of solutions along the Colorado River. The process serves as a framework to encourage cooperation, interaction and inclusivity and ensure communication is more predictable, transparent and reliable. It is intended to provide a shorter structured planning horizon allowing for greater certainty and adaptability to combat the Colorado River's variability. This process is designed to be leveraged in conjunction with the Basin states 'current processes and is modular — allowing for implementation of the proposal in part or in total. We believe that increased regularity and frequency of interactions will facilitate a strengthening of the relationships that have guided the Colorado River resources over the past 100 years.

Planning Process Proposal

This proposal consists of three elements: a biennial planning process, the formation of a "Basin States Plus" guidelines consultation committee and the hosting of "Reclamation Roundtables" to provide more open and broad participation by sectors and issue areas.

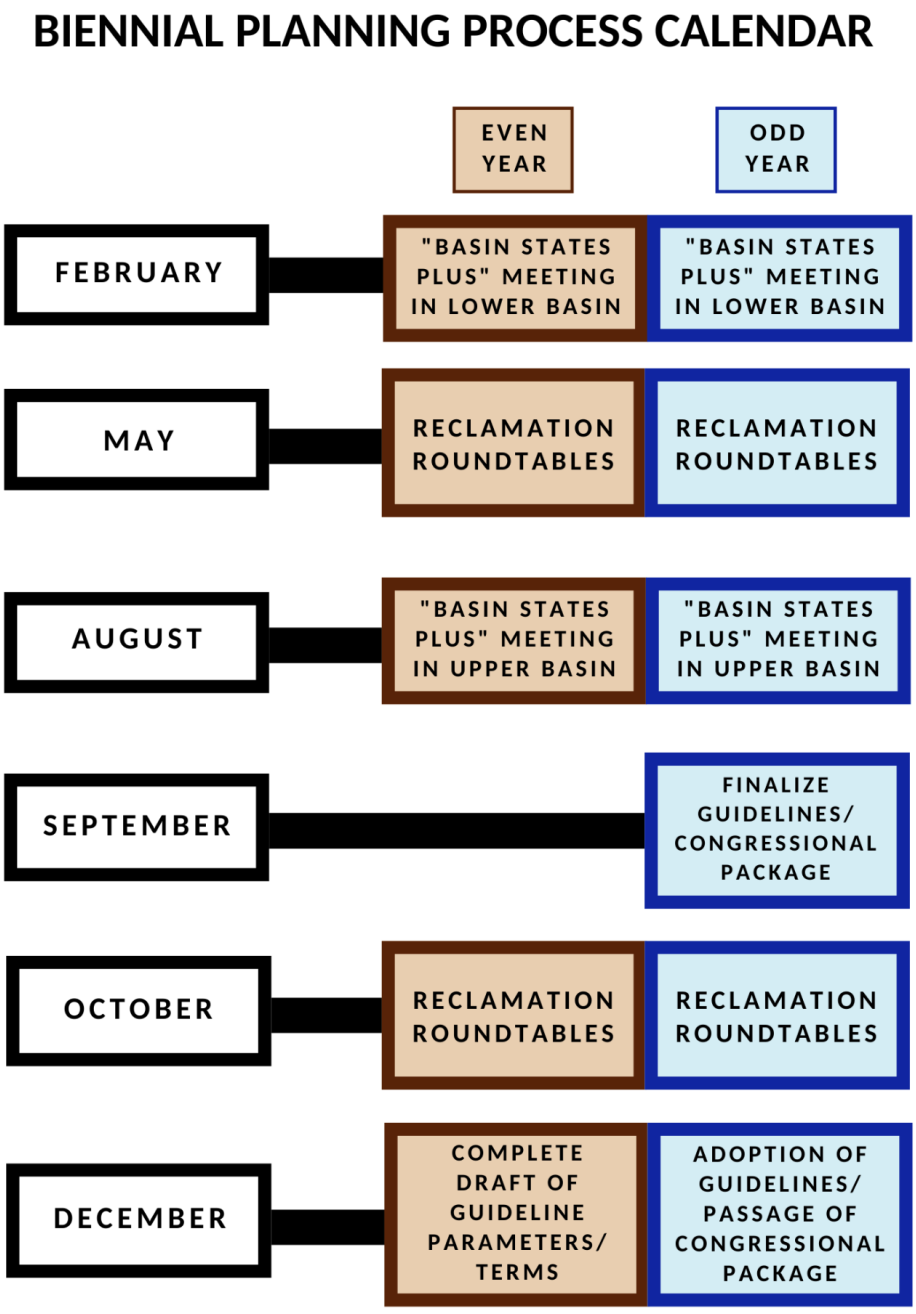
Inspired by biennial planning and budgeting processes practiced as a core part of the governance processes of the Central Arizona Water Conservation District (Central Arizona Project), the Metropolitan Water District of Southern California and the Southern Nevada Water Authority's 50-year horizon Annual Water Resource Plan, a biennial planning process contemplates the development of a revised set of operating guidelines every two years. Under the biennial planning process, even years would be focused on evaluating previous guidelines and developing draft parameters and terms for the next set of guidelines. Odd years would be focused on finalizing and approving guidelines and associated agreements. Odd years would also be used to seek congressional approval of the guidelines, as required, and legislation providing authorization for funding and other priorities.

As part of this process, "Basin States Plus" meetings would be organized semi-annually each February and August. Supplementing the existing Basin states, tribal consultation and International Boundary and Water Commission (IBWC) processes, the Basin States Plus meetings would provide regular, semi-formal plenary forums for representatives of the United States (Commissioner of the Bureau of Reclamation, Assistant Secretary for Water and Science, Upper and Lower Basin Regional Directors), Basin states, tribal nations and Mexico (IBWC Commissioners) to assemble. These meetings would entail broader participation among key principals in river discussions at a regular interval to share information, perspectives, proposed milestones and goals at a high level.

Reclamation Roundtables would facilitate broader and more public-facing interactions by sector and issue areas. Occurring twice annually, in May and October, Reclamation would organize five separate

meetings to include Upper Basin states and stakeholders, Lower Basin states and stakeholders, tribal nations, environmental groups and agricultural interests. These informal meetings, to be hosted virtually or in a hybrid format, are intended to provide greater and more regular engagement in sharing information and perspectives while developing guidelines. These meetings may also include other federal agencies, such as the United States Department of Agriculture, Fish and Wildlife Service, National Park

Service, Western Area Power Administration, and the Bureau of Indian Affairs, as appropriate, to provide additional collaboration.



Analysis

Past and present processes to develop guidelines for the Colorado River can arguably be described as reactive, opaque, under-resourced and inflexible. This is neither a criticism of any agency nor a disapproval of individual and collective efforts to address challenges on the Colorado River. Rather, it is a

recognition that a more proactive, open, resourced and adaptive governance approach is required to ensure the best possible outcomes for the river in the long term.

At the core of this proposal, the biennial planning process dramatically shortens the time intervals for developing or revising operating guidelines. As the effects of climate change manifest in the Colorado River Basin, it's clear that hydrological conditions will become even more volatile and operating assumptions will require regular revisions. In 2001, Basin states developed the Colorado River Interim Surplus Guidelines. In 2007, just six years later, Basin states understood a course reversal was required and developed the Colorado River Guidelines for Lower Basin Shortages. Since then, Basin states have developed, in rapid succession, the 2019 Drought Contingency Plan, the 2021 500+ Plan and now, in 2022, are actively working on drought response efforts to secure an additional 2-4 MAFY in reductions to protect designated critical elevations at Lakes Powell and Mead. Establishing guidelines that remain fixed over decades does not provide for adaptive management in an increasingly volatile system with new variables over time. At the same time, two-year guidelines developed through a biennial planning process should not just look at planning for two years, but instead, make adjustments in planning following projected long-term hydrological projections and objectives.

Semiannual "Basin States Plus'' meetings allow for clearer and more regular communication with a broadened group of core principals. The meeting in February starts the year and the August meeting corresponds to the annual 24-month study, each allowing for a review of the prior six months. These meetings are intended to supplement, and not replace or set aside, existing Basin states, tribal or binational consultation processes, or the Annual Operating Plan development process. Reclamation Roundtables also provide additional engagement forums for various sectors and issue areas currently lacking.

Regular, scheduled interaction aids in building trust, establishing a sense of clear direction and a shared understanding of issues essential to completing necessary work in developing effective guidelines. This proposal seeks to create a more inclusive, formal and intentionally designed process to achieve priorities and goals in the Basin. Additionally, this Planning Process Proposal framework could be aligned with our Federal Funding Recommendation to acquire resources to drive new and innovative solutions needed to combat issues surfacing along the Colorado River.

In a sense, the two-year guidelines and biennial planning process are somewhat akin to iPhone or computer updates — expected, regular, incremental and building upon the last version with new features added and previous bugs resolved. Attempting to solve the Colorado River Basin's problems at once every few decades is not a recipe for success. Instead, incrementally, but regularly, adjusting operations and activities to accomplish strategic goals for the Basin gives us a better chance for success.

Recommendation 2: Establish a more holistic approach to systems management.

The Colorado River is no longer producing 15 MAFY. More water is being depleted than is being produced by inflows each year. Hydrological modeling varies, actual river flow changes each year and future conditions are uncertain and expected to become more variable. Current operations do not reflect the reality of the system.

We recommend a more holistic approach to systems management; one that provides flexibility to adapt to a wide range of hydrologies. The focus should be on mass balance — matching depletions with available supply and inflows. Such focus will allow the system to recover and build resiliency.

Total Storage

Under the 2007 Interim Guidelines, shortages are applied to the Lower Basin once water elevations reach low points in Lake Mead. Because of the reservoir-balancing nature of the guidelines, this has led to shortages being implemented only after both Lakes Powell and Mead are extremely low. The 2007 guidelines incentivize use and offer belated shortages insufficient to protect the reservoirs under current drought conditions. As seen in other studies (Wang et al., 2020; Wheeler et al., 2022), we propose that Lakes Powell and Mead be treated as one reservoir under future water management guidelines, where the volume of the two reservoirs (total storage) will guide shortage decisions. A combined storage approach with more effective and timely shortage operations will encourage future water savings rather than overuse and will better avoid the low reservoir conditions faced today.

Inflows

While operational decisions would be based on current hydrology looking at total storage, inflows to the reservoirs will act as signposts for future conditions. A rolling average of annual inflows (e.g., 5-7 years) will provide an insight into future storage conditions, allowing decision-makers to modify operational decisions accordingly. Storage levels and Reclamation's 24-month study will provide evidence of system health, while inflows will foreshadow future storage levels and resulting shortage conditions. This will give decision-makers time to implement operational changes and shortages. Ongoing analysis would be needed to determine when inflows create vulnerability. This approach will provide needed adaptability to avoid dangerously depleting storage in the future.

Allocations

The Upper Basin operates under percentage allocations pursuant to the 1948 Upper Colorado River Basin Compact. The Lower Basin, on the other hand, operates under specific allocations regardless of water availability. As such, it will be up to the Lower Basin states to determine their respective allocations for each state, either based on percentage or some other agreed upon method. The individual Basin states will then determine how to use their respective allocations. Mexico will continue to receive its 1.5 MAF allocation until storage triggers are hit. All consumptive uses within the Basin will also account for reservoir evaporation and losses.

Shortages

The 2007 Guidelines assumed an optimistic view of inflows where storage would replenish every few

years. Although wet years will continue to occur in the future, the frequency and magnitude of these reservoir recovery periods may decrease under potential future climate conditions (Salehabadi et al., 2020; McCabe et. al., 2017). It is evident that the current system operations are out of balance with such a future and that a "live within your means" ethos is needed to avoid our current cycle of drastic cuts under emergency conditions. We propose the following general operating guidelines to balance all uses against uncertain future climatic, economic and social conditions:

- Under shortage conditions (based on total storage), the Upper and Lower Basins will reduce future consumptive use (i.e., shared shortages approach).
- Shortage conditions based on total storage will be triggered well before total storage reaches critical levels.

Less intense triggers for reductions should take place at higher levels of storage to rebuild and ultimately maintain storage and resiliency in the system. Additional analyses and negotiations are needed to determine the appropriate timing and magnitude of shortage conditions, and these values should be revisited frequently as part of our proposed process. For example, if storage drops drastically from one year to the next, more intense reductions may be needed. Projected inflows and other Basin conditions could act as signposts for such changes, as discussed above.

Water users should expect to have frequent shortages compared to what they would receive under surplus conditions, and should plan on meeting those shortages through some combination of alternative supply or demand management. We feel this approach allows the Basin to share risks and adapt to future uncertainties together.

Reservoir Operations

Operations of Basin reservoirs should be optimized to meet the needs of the environment, hydropower and recreation along with other system benefits. Reservoir operations should assist in the recovery of endangered fish and their habitat. Specifically, Glen Canyon Dam should be operated in a manner that protects and improves natural and cultural resources and visitor use in the Grand Canyon National Park and Glen Canyon National Recreation Area. Future operations should allow for the potential to modify reservoir operations to adaptively manage a wide range of conditions in an uncertain future.

Recommendation 3: Leverage the political power of the Colorado River Basin for a Biennial Colorado River Advancement Act.

Collectively, the Colorado River Basin states wield economic and political power accounting for over $1.4 trillion in economic impact and 16 million jobs (The Nature Conservancy). Agricultural communities drive the economies of the rural West generating over $60 billion in crops and livestock, irrigating 15% of U.S. farmland and providing 90% of winter vegetables (Center for Water Policy). In addition, the Colorado River Basin supports vibrant cities and communities that build the diverse fabric of the American West and fuels a $26 billion outdoor recreation industry (Southwick Associates, 2012).

Beyond economic power, the Colorado River Basin states are well-positioned politically with six senators sitting on the Energy and Natural Resources Committee (AZ, NV, CO, NM, UT, WY) and two senators sitting on the Agricultural Committee (NM, CO).

The Colorado River Basin states must leverage their collective power and push Congress to enact large-scale, predictable federal investments that drive actions to address the current system imbalance and support widespread watershed health needs. A biennial funding package creates certainty and flexibility to incentivize action and opportunities to experiment with creative, but impactful solutions.

The Colorado River Basin states are beginning to exercise this power and bipartisan approach by successfully working with their respective delegations to support:

- The critical addition of a $4 billion investment in drought relief and restoration included in the Inflation Reduction Act with support from U.S. Sens. Catherine Cortez Masto (D-NV), Mark Kelly (D-AZ), Kyrsten Sinema (D-AZ), and Michael Bennet (D-CO).
- Large-scale Western water investments in the Infrastructure Investment and Jobs Act including funding to implement the Upper and Lower Basin Drought Contingency Plans.
- The Salton Sea Projects Improvement Act [Feinstein (D-CA), Kelly (D-AZ), Padilla (D-CA), Sinema (D-AZ)] with an Upper Basin amendment to reauthorize the System Conservation Pilot Program through the Colorado River Basin Conservation Act [Barrasso (R-WY), Bennet (D-CO), Hickenlooper (D-CO), Lummis (R-WY)].
- Additional funding and authorization for the Upper Colorado and San Juan Endangered Fish Recovery Programs through the Upper Colorado and San Juan River Basins Recovery Act [Bennet (D-CO), Heinrich (D-NM), Hickenlooper (D-CO), Lujan (D-NM), Romney (R-UT)].

The urgent need for additional, regular federal investment is two-fold:

- Adjusting to hydrologic conditions, while supporting environmental objectives, will take significant financial resources. New strategies to reduce system demands by 2-4 MAF are costly and nearly impossible to achieve without associated funding.
- Consistent and predictable federal funding will incentivize iterative and more frequent negotiations between the states, tribes, and other water users, while diffusing conflict.

A biennial Colorado River Advancement Act would bring together the Upper and Lower Basins to advocate for support through a variety of existing federal vehicles beyond the Bureau of Reclamation, including the U.S. Fish and Wildlife Service, the Department of Agriculture (U.S. Forest Service, Natural Resources Conservation Service, Farm Service Agency, etc.) and direct authorizations to states, tribes or directly to projects. Additionally, the funding package would be negotiated as part of a revitalized, biennial planning process discussed in the first recommendation. Ultimately, a consistent federal funding package would provide needed incentives to encourage innovation, support permanent water reductions and avoid unproductive conflict.

Recommendation 4: Include the Environment: Multi-Benefit Projects for Climate Resilience

The environment is often considered as separate from human-made infrastructure and human needs and historically has not been considered in Colorado River Basin operations and planning. But the health of our watersheds determines and reinforces the health of the communities, economies and infrastructure within them (Martin & McCoy, 2022). Incorporating the environment in the next round of Colorado River operating guidelines will help create a Colorado River Basin that is resilient in the face of climate change, with thriving communities, economies and ecosystems. A holistic approach means prioritizing projects that benefit the environment for all sectors; improved watershed health means improved water security for people and the environment.

Such multi-benefit projects result from strong partnerships (Western Agriculture & Conservation Coalition, n.d.) between diverse interests and result in win-win-win solutions. For example, an improved irrigation diversion can provide not only better fish passage, but also improved water quality for downstream users and savings on labor costs and time for agricultural producers who no longer need to repeatedly build in-stream push-up dams throughout the irrigation season. These are also projects that provide benefits beyond the life of the project; wet meadow restoration, for example, continues to provide improved water quality, fire mitigation, and water and forage availability for livestock and wildlife for decades after the project's completion.

The imbalance in supply and demand in the Colorado River Basin cannot be brought back into equilibrium by simply reducing demand. Watershed health is a factor in the volume and quality of water available. Diverting less water from the river will not solve the problem because the system itself is more dynamic than a simple math equation.

A comprehensive approach will be necessary to attain any amount of replenishment toward an increase in system storage volume. Environmental flows consist of both groundwater and surface water flows needed to sustain both ecological as well as human needs.[1] Healthier aquatic systems mean better water quality and security. Reduction in flows needed to sustain riparian habitat and riverine species have detrimental effects on overall watershed health (Sustainable Water Partnership, n.d.), and alterations to flows that exceed tolerance of any species can result in significant damage to ecosystems (Shafroth et al., n.d.).

We recommend including the environment in the policy, planning, processes and funding for the 2026 guidelines. Establishing a permanent funding source with ecosystem restoration as a statutorily authorized purpose for the funds, in concert with other drought strategies, will help build a resilient and thriving Colorado River Basin. In addition to the environmental benefits to the Basin, funding ecosystem restoration projects can also avoid significant costs. For instance, costs associated with a catastrophic wildfire such as fire suppression, water quality degradation and damage to infrastructure can far exceed what the cost would have been to restore the same area (Combrink et al., 2013; Combrink et al., n.d.).

[1] The Brisbane Declaration (2007) defined environmental flows as "*the quantity, timing, and quality of water flows required to sustain freshwater and estuarine ecosystems and the human livelihoods and well-being that depend on these ecosystems.*"

Below are examples of the kinds of strategies and projects that benefit the environment and communities by building climate resilience in the Basin, though not an exhaustive list.

Forest Management

The majority of the Colorado River Basin's water originates as snow in the river's largely forested headwaters. Effective management of these forests can "potentially mitigate against watershed degradation, severe wildfire and other climate change impacts" (Martin & McCoy & Culp & Kelly, LLP, 2021). In addition to improving water quantity, forest restoration protects water quality by avoiding post-fire erosion, contaminants and downstream sedimentation. It reduces wildfire risks for the surrounding communities, boosting economic development in rural areas as industry partners hire workers to complete the restoration work.

- The Four Forest Restoration Initiative (4FRI) is a collaborative effort to accelerate landscape-scale forest restoration in Arizona. Restoring forests to fire-adaptive ecosystems reduces the risk of severe wildfires and provides for wildlife and plant diversity.

Restoration of Hydrologic Processes & Riparian Health

Restoring natural hydrologic processes and improving riparian health provides multiple benefits, including "reducing and sequestering greenhouse gas emissions and increasing economic resilience by providing cost-effective mechanisms to restore degraded working lands and potentially improve land value and profitability of operations" (Martin & McCoy & Culp & Kelly, LLP, 2021). These projects can provide wildfire mitigation while improving water quality, wildlife habitat and recreation opportunities.

- Restoration work in Utah's Miller Creek helps combat the detrimental effects of the 2012 Seeley Fire by dramatically decreasing the flash floods and water quality problems that follow the kinds of large wildfires that have occurred throughout the West (Porterfield, 2021).
- Irrigation modernization in the Henry's Fork River on the Utah-Wyoming border improves water management for producers while simultaneously improving riparian health and opening fish passage over 50 river miles (Trout Unlimited, n.d.).
- The Colorado River Connectivity Channel (Gann, 2022), the result of a partnership between diverse stakeholders, will reconnect the Colorado River at Windy Gap Reservoir, with ecosystem health benefits for over 30 river miles on the Colorado (Blevins & Schimke, 2022).

Salton Sea

The Salton Sea cannot be overlooked in a discussion of environmental commitments addressed as part of any Colorado River solution. The environmental hazard created by the receding shoreline is not only a water quality problem for wildlife, but impairs air quality in the surrounding communities. While many view the Salton Sea as a liability to be managed as part of the Colorado River discussion, there are opportunities to strengthen partnerships and develop long-term solutions. Federal funding can be used to provide resources to California and its partners to assist in short- and long-term management goals, such as dust suppression, creation of wildlife habitat and engagement with the local community.

- The Bombay Beach Wetlands project, a partnership between Audubon California and Reclamation, benefits both wildlife and surrounding communities. This project will include "dust suppression and the expansion, stabilization, restoration, and enhancement of 250 acres of these emerging wetlands near the town of Bombay Beach on the Salton Sea." The wetlands will serve as habitat for migrating birds and will have the additional benefit of mitigating the dust that is causing respiratory health concerns for residents near the Salton Sea (Audubon California, n.d.).

Conclusion

Colorado River storage has been depleted and future river conditions are expected to become more variable. The 2026 Interim Guidelines renegotiation provides an opportunity to implement management decisions that generate greater resiliency in the system. We are proposing changes to the process as well as considerations that should be explored within any process. First, a proactive planning process is needed to ensure certainty and adaptability. Operations on the Colorado River should be reviewed more frequently with broader participation to better adapt to the quickly evolving hydrologic conditions. Second, a more holistic approach to system management should be established that balances water use with available supply. We recommend Lakes Powell and Mead be treated as one reservoir with shortage triggers at higher levels of total storage. Third, consistent funding is needed to support permanent water reductions and facilitate restoration efforts. The Basin states should use their economic and political influence to leverage a biennial federal funding package. Fourth, ecosystem restoration projects will provide long-term benefits to the health of the Colorado River. The environment should be included in future Colorado River negotiations. While these proposals do not represent an exhaustive list of actions that should be considered post-2026, they are reflective of areas that Upper and Lower Basin participants from a variety of sectors have discussed and brought forward, which in itself is meaningful.

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Steamboat Rock rises above the Green River and dominates the view at Echo Park, Colo.