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RE: Bureau of Reclamation (Reclamation) released a revised draft [Supplemental Environmental Impact Statement \(SEIS\)](#) ¹ as part of the ongoing, collaborative effort to update the current (2007) interim operating guidelines for the near-term operation (ending in 2026) of Glen Canyon and Hoover Dams to address the ongoing drought and impacts from the climate crisis.

“Some movement toward a steady-state condition that lies within the bounds of resource availability is not only the crux of a resource management philosophy but is also the acid test of leadership. I do not consider this politically impossible. The public is learning. It may well be the best political course to pursue.”

Luna B. Leopold, 1977 ²

Part One: Introduction

This comment letter is provided by Center for Biological Diversity, Colorado Riverkeeper, Glen Canyon Institute, Great Basin Water Network, Great Basin Waterkeeper, Las Vegas Water Defender, Living Rivers, River Runners for Wilderness, Save The Colorado, and Utah Rivers Council.

¹ Draft SEIS; Reclamation, 2023. <https://www.usbr.gov/ColoradoRiverBasin/documents/NearTermColoradoRiverOperations/20231019-Near-termColoradoRiverOperations-RevisedDraftEIS-508.pdf>

² A reverence for rivers; Leopold, 1977.: <https://waterethics.org/wp-content/uploads/2011/11/A-Reverence-for-Rivers.pdf>

This letter incorporates by reference our earlier scoping comments, along with cited documents sent on thumb drive that was mailed to Reclamation by US Postal Service, on December 20, 2022.³ We are also including our comments for the draft EIS for 2007 Interim Guidelines,⁴ because we explained in great detail what the baseline assumptions should have been, and because we now understand that the accepted assumptions from the water managers of the Colorado River Basin (CRB) in 2007 were indeed wrong, and that they are now squandering the public's time and resources, which will also be explained in the narrative below.

Part Two: Modeling Assumptions for revised draft SEIS by Reclamation

The baseline assumptions for this analysis were not robust. The revised draft SEIS is best described as a document that adheres to the practice of business-as-usual; the approach was minimalistic for a situation that was previously described in 2022 as catastrophic.⁵

A preferred alternative was not chosen in this revised draft SEIS. Instead, the no action alternative serves as the worst-case scenario, and the other three alternatives are quite similar and each point away from the desired goal to provide system resilience and sustainability.

Reclamation states that the original draft SEIS was modified for the revised draft SEIS under these circumstances, as highlighted below:

- ...“improved hydrology.”
- The unregulated inflow into Lake Powell for Water Year 2023 was 13.42 million acre-feet (maf) and only 3.82 maf above the 30-year average, which has declined by 2.44 maf since 1991 (16 percent).
- Congress gifted the managers with 4 billion dollars to mitigate the impacts of “drought.”
- The states then presented a new and slightly improved shortage agreement.

³ SEIS Scoping Letter; Living Rivers et al., 2022. <http://www.riversimulator.org/2025Guidelines/USBR/SEIS/Scoping/ScopingSEIS2022LivingRiversEtalCleanCopy.pdf>

⁴ Draft EIS comment letter; Living Rivers et al., 2007. http://www.livingrivers.org/pdfs/LR_Shortage_DEIS.pdf

⁵ Los Angeles Times; Ian James, October 2023. <http://www.riversimulator.org/2025Guidelines/USBR/SEIS/SEISdraft/SEIS/News/FedsSayColoradoRiverWaterCutsSufficientEnoughToStaveOffImmediateRisks2023IanJamesLATimes.pdf>

- This three-year agreement does not match the minimal target range of about 15%. To see actual improvement in the basin, reductions must be 20% and in this decade. In the next decade the target must be 25%. If this target cannot be matched for the SEIS, then we can safely assume it won't be matched in the final EIS for the new guidelines of 2026.

Summary: The “improved hydrology” that Reclamation relies on is not an exceptional amount of water and by relying on a single wet year for the revised SEIS, Reclamation ignores the true need and purpose for the revised guidelines. Reclamation again defaulted to the states as it did in 2007 and 2019 — opting to obfuscate basin-wide accounting with the aid of taxpayer funds, questionable accounting mechanisms like ICS, and myopic inputs in the modeling. By buffeting paper water schemes with paper dollars, Reclamation has failed to fulfill its duties to defend public interest considerations inherent within the Colorado River Basin. What we observe is that Reclamation and the states are not motivated by public interest responsibilities. We cannot see how this deal even meets the minimal requirements of the 2006 Decree in the landmark Supreme Court case *Arizona vs California*.

Part Three: In this revised draft SEIS, Reclamation has narrowed the “hard look” standard of the National Environmental Policy Act (NEPA). The hydrology of 2023 was misrepresented to the public, progressive aridification in the Basin was again ignored, and the assumptions used for this analysis are unsupported.

In 2020, the Council on Environmental Quality provided the following standard for citizens and public officials: ⁶

NEPA procedures and information....”must be of high quality. Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA. Most important, NEPA documents must concentrate on the issues that are truly significant to the action in question, rather than amassing needless detail.

Ultimately, of course, it is not better documents but better decisions that count. NEPA's purpose is not to generate paperwork—even excellent paperwork—but to foster excellent action. The NEPA process is intended to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment. These regulations provide the direction to achieve this purpose.”

⁶ Environmental Quality 1500 - <http://www.riversimulator.org/Resources/LawOfTheRiver/EnvironmentalQualityPart1500CEQ2020.pdf>

As citizens, we present the following information to be helpful to this NEPA process, as follows:

- Despite the short-term nature of this SEIS, persistent aridification due to higher temperatures and long-term declines of water availability in the basin should be used as the correct baseline assumption for the present hydrology, not only cyclical and temporary “drought” conditions.
- See the table **next page** of recommended science journals to help determine the appropriate baseline assumptions.
- For example, to determine a realistic best case hydrology of water flowing into Lake Powell for the next three years, the present 30-year average of 9.6 million acre-feet per year would be reasonable analysis to educate the public.⁷
- To determine a possible worst case hydrology in the next three years, a reduction of 40% from the 30-year average is also an acceptable assumption, because that was the hydrology that initiated the EIS for shortage criteria in 2005.
- For this revised draft SEIS the responsible parties changed the baseline due to a single, random snow melt that was actually quite ordinary.⁸ As Jack Schmidt recently explained: *“The increase in reservoir storage in WY2023 was small in comparison to the total loss in storage that had occurred since summer 1999.”*
- The start date for modeling the alternatives begins on June 1, 2023 after the reservoir elevation at Lake Powell had already increased by 40 feet. The start date should have been 3,490 feet, which is the minimum reservoir level for hydropower production.
- It should be noted that non-native fish are captured by velocity currents near the intakes of the penstocks at elevations near and above 3,520 feet.
- A one-time rescue, in the form of emergency funding from the federal treasury, will not change the condition of pending shortfalls that will persist long after the money is spent.
- Long Range Operating Criteria was initiated by Congress in 1970. The states have had fifty-plus years of opportunity to effectively balance the water budget and without any success. For Reclamation to continue to rely on the states to ensure a balanced water budget is irrational.
- The states have made it very clear that it is impossible to provide meaningful reductions greater than 15 percent. In other words, system flexibility does not

⁷ 2023 Annual Operating Plan, page 10. <https://www.usbr.gov/uc/water/rsvrs/ops/aop/AOP23.pdf>

⁸ Jack Schmidt, Water Year 2023 in Context: A cautionary tale. Center for Colorado River Studies: Utah State University; 24 October, 2023. <http://www.riversimulator.org/Resources/University/USU/Future/WaterYear2023InContextAcautionaryTale2023Schmidt.pdf>

exist any longer, and the limits of reductions merely to protect two reservoirs has already been reached.

- With this revised draft SEIS analysis, we have less confidence in Reclamation's modeling procedures because it appears that Reclamation has cherry-picked the assumptions and parameters to reach its preferred outcome rather than rigorously undertaking a scientifically sound approach that does not aim at a predetermined outcome.
- The Colorado River Basin is stuck in a hydraulic trap and the only viable solution is to create a new and different beginning where public interest considerations finally play a role in management.

Part Three References

Williams, A.P., Cook, B.I. & Smerdon, J.E. Rapid intensification of the emerging southwestern North American megadrought in 2020–2021. <i>Nat. Clim. Chang.</i> 12, 232–234 (2022).	https://doi.org/10.1038/s41558-022-01290-z
Bass, B., Goldenson, N., Rahimi, S., & Hall, A. (2023). Aridification of Colorado River Basin's snowpack regions has driven water losses despite ameliorating effects of vegetation. <i>Water Resources Research</i> , 59, e2022WR033454.	https://doi.org/10.1029/2022WR033454
Finger-Higgins, R., Bishop, T. B. B., Belnap, J., Geiger, E. L., Grote, E. E., Hoover, D. L., Reed, S. C., & Duniway, M. C. (2023). Droughting a megadrought: Ecological consequences of a decade of experimental drought atop aridification on the Colorado Plateau. <i>Global Change Biology</i> , 00, 1–14.	https://doi.org/10.1111/gcb.16681
Lisonbee, J., E. Ossowski, M. Muth, V. Deheza, and A. Sheffield, 2022: Preparing for Long-Term Drought and Aridification. <i>Bull. Amer. Meteor. Soc.</i> , 103, E821–E827	https://doi.org/10.1175/BAMS-D-21-0321.1

Part Four: The Deep Uncertainty

We do agree that the water problems of the Colorado River Basin are deep and mired. However, we do not think the future is uncertain. For example, we already understand the system will be operating in the 10th percentile for the rest of the century on average even if some wet years occur, that no further voluntary reductions from the states will be forthcoming, and the weaknesses in the legal foundations and the infrastructure are creating lose-lose outcomes where water availability for human needs and hydropower

will both decline along with the health of the river basin ecosystem. Meanwhile Reclamation arbitrarily tinkers with its modeling to predict a rosy outcome.

Below, we present the rest of our cautionary tale about the future:

- 120 years of rapid planning and zoning in the Colorado River Basin has embedded a fixed amount of water consumption that cannot compete with the massive impacts of global warming.
- We know that efficiency programs can reduce water demands, but not if planning and zoning officials simultaneously issue permits that create new consumptive uses.
- Neighboring river basins have wisely chosen not to export their water resources to the Colorado River Basin.
- The race to a hardened supply will have consequences.
- Some water inefficiencies are not necessarily bad management, because it may provide an opportunity to share water with wildlife and tribes.
- We advise extreme caution when transferring water from agriculture, because basic nutrition at affordable prices is crucial to public health and safety.
- In the next three decades, federal rescue funds will be directed to the relocation of coastal infrastructure, since sea level rise is projected to magnify by 30 percent.⁹
- The aquifers in the Colorado River Basin will increasingly become the surrogate water supply — but only until those wells run dry. Increasing aridification and reduced water availability for vegetation will also lead to other impacts including increased air pollution — as is already taking place in areas such as the Salton Sea and the Great Salt Lake.
- Hopefully before that happens, the states will agree to come to the table and work cooperatively towards a more rational system that can fairly apportion the dwindling water supplies in the Colorado River that ensure the needs of the ecosystems are also met.

Part Five: Conclusion. The naturalist approach should be embraced.

As we have mentioned in all our many letters to Reclamation since 2005, when scoping began to develop shortage guidelines, the approaches by the seven states to balance the water budget have not been effective. The federal government is spending as much money in the 21st century as was spent in the 20th century. What is different, is our

⁹ 2022 Sea Level Rise Technical Report; NOAA, 2022. <https://oceanservice.noaa.gov/hazards/sealevelrise/sealevelrise-tech-report-sections.html>

water infrastructure debts that our congressional representatives promised to repay, will never be satisfied.

We suggest that the basin managers take the naturalist approach to solve the water scarcity issue that this nation created. This approach was suggested in the formative years of the 19th century by philosophers, but was ultimately rejected in favor of boosterism.

The water cycle is in continuous movement, and these cycles are also highly variable, and our management practices must be conformable to the fixed laws of nature. The naturalist approach means we accept the geography and the climate of this region for what it truly is, and is not. We don't see this approach happening in the present SEIS of 2023 or the forthcoming EIS of 2026. Therefore, we think that failure is more certain, than uncertain.

Very truly yours,

John Weisheit, Living Rivers and Colorado Riverkeeper
Kyle Roerink, Great Basin Water Network and Great Basin Waterkeeper
Taylor McKinnon, Center for Biological Diversity
Eric Balken, Glen Canyon Institute
Zach Frankel, Utah Rivers Council
Tick Segerblom, Las Vegas Water Defender,
Tom Martin, River Runners for Wilderness
Gary Wockner, Save The Colorado