Ute Indian Tribe of the Uintah and Ouray Reservation

Comments on the U.S. Bureau of Reclamation's
Draft Environmental Impact Statement on
Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead

February 26, 2026

The Ute Tribal Business Committee, on behalf of the Ute Indian Tribe of the Uintah & Ouray Reservation ("Ute Indian Tribe"), submits these comments in response to the Department of Interior's ("Department" or "Interior") publication of the Post-2026 Colorado River Draft Environmental Impact Statement ("DEIS") in the Federal Register on January 16, 2026, which began the 45-day comment period for the DEIS.[1] The Secretary of the Department is acting through the Bureau of Reclamation ("Reclamation" or "BOR").

INTRODUCTION

The Ute Indian Tribe is located on the Uintah and Ouray Reservation ("Reservation") in northeastern Utah, approximately 150 miles east of Salt Lake City, Utah. All of our Reservation land lies within the drainage of the Colorado River Basin. Our Uintah and Ouray Reservation was first established in 1861, after millions of acres of land were taken by the United States. Today, our Reservation is the second largest Indian reservation in the United States covering more than 4.5 million acres. The Ute Indian Tribe has nearly three thousand enrolled tribal members, a majority of whom live within the exterior boundaries of the Reservation. The Ute Indian Tribe has Indian reserved water rights apportioned in the Colorado River, totaling 554,599 acre-feet annually by diversion of adjudicated rights and future irrigable lands, including rights in the Green River and its tributaries that run through the Reservation. The Ute Indian Tribe will be directly and indirectly affected by any of the Post-2026 proposed alternatives for operational guidelines for Lake Powell and Lake Mead.

[1] 91 CFR 2131 (January 16, 2026).

FEDERAL TRUST OBLIGATIONS

When an Indian reservation is established by the United States, the tribe implicitly reserves the water that arises on, borders, crosses, underlies or is encompassed within the reservation.[2] Under the *Winters* doctrine, the federal government reserves appurtenant water then unappropriated "to the extent needed to accomplish the purpose of the reservation."[3] Federal Indian reserved water rights can include perennial, ephemeral and intermittent flow, or flows connected to navigable waters. Regardless of the type of water flow and whether those federally reserved Indian water rights ("Indian water rights") have been confirmed through settlement or adjudication, Indian water rights are Indian Trust Assets, i.e., tribal trust property, subject to federal protection and jurisdiction.[4] Further, federal law establishes that "Indian [water] claims are governed by the statutes and Executive orders creating the reservation,"[5] with the date of the Ute Indian Tribe's priority use to its Indian reserved water rights the date the tribal reservation was created, and they are created without diversion or proof of beneficial use and cannot be forfeited or lost by non-use.

The U.S. Supreme Court has held that Indian water rights are "present perfected rights," that is, they are fully vested property rights at the time the Indian reservation was created. The Supreme Court held in *Arizona v. California* that, in terms of the 1922 Colorado River Compact, present perfected rights ("PPRs") are "perfected rights, as here defined, existing as of June 25, 1929, the effective date of the Boulder Canyon Project Act."[6] The DEIS uses the definition of present perfected rights stemming from *Arizona v. California*, and added that "PPRs are the highest-priority Colorado River water rights that the 1964 Decree defines as those perfected rights existing on June 25, 1929 (the effective date of the Boulder Canyon Project Act of 1928)."[7] These considerations are important because the Colorado River Compact states that "[p]resent perfected rights to the beneficial use of waters of the Colorado River System are unimpaired by this compact."[8] The United States, as the trustee of our Ute Indian Tribe's presently perfected Indian water rights, must ensure that our Indian water rights are not impaired.

Thus, the Ute Indian Tribe's Indian water rights are trust property held in trust by the United States as trustee, with the Ute Indian Tribe as the beneficial owner. The United States owes

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[2] *Arizona v. Navajo Nation*, 599 U.S. 555, 561 (2023), *citing Winters v. United States*, 207 U.S. 564, 576-577 (1908); *Cappaert v. United States*, 426 U.S. 128, 138-139, 143 (1976); and *Arizona v. California*, 373 U.S. 546, 598-600 (1963).

[3] *Sturgeon v. Frost,* 587 U.S. 28, 43 (2019) (explaining that in reserving land for an Indian tribe, the Government impliedly reserved sufficient water from a nearby river to enable the tribe to farm the area), *quoting Cappaert,* 426 U.S. at 138; and *Winters*, 207 U.S. at 576.

[4] Working Group in Indian Water Settlements; Criteria and Procedures for the Participation of the Federal Government in Negotiations for the Settlement of Indian Water Rights Claims, 55 Fed. Reg. 9,223, 9,223 (Mar. 12, 1990); *see also United States v. White Mountain Apache Tribe*, 537 U.S. 465 (2003) (a fundamental common law duty of a trustee is to preserve and maintain—and not waste, intentionally or unintentionally—trust assets). This duty arises from treaty, statutes, regulations, and from the exercise of extensive control over the Tribes' Indian water rights.

[5] *Arizona v. California*, 373 U.S. at 597.

[6] *Arizona v. California*, 547 U.S. 150, 154 (2006).

[7] U.S. Dep't. of the Interior, Bureau of Reclamation, *Post-2026 Colorado River Reservoir Operations Draft Environmental Impact Statement* Vol. 1: Preparers, References, Glossary, and Index at Glossary-12 (Jan. 2026), https://www.usbr.gov/ColoradoRiverBasin/post2026/draft-eis/docs/vol-1/P26-DEIS-5-Preparers-References-Glossary-Index.pdf

[8] Colorado River Compact, 1922, Nov. 24, 1922, Art. VIII.

federal trust obligations to protect and preserve the Indian Trust Assets ("ITA" or "ITAs") of the Ute Indian Tribe, including its Indian water rights. The Department of the Interior's policies on Indian Trust Assets is articulated in Interior's Department Manual, which states that "[i]t is the policy of the Department of the Interior to discharge, without limitation, the Secretary's Indian trust responsibility with a high degree of skill, care, and loyalty."[9] The final Environmental Impact Statement ("EIS") must include an analysis of how each alternative upholds the federal government's trust obligations to the Ute Indian Tribe. Failure to do so would be a failure of the United States' trustee obligations and result in violation of the requirements of the National Environmental Policy Act ("NEPA").[10]

The United States' trust responsibility is manifested through meaningful government-to-government consultation with tribes. Executive Order 13175 requires consultation that is timely, substantive and influential, particularly where tribal rights and trust resources are at stake.[11] The Secretary of the Interior's *Detailed Plan for Improving Interior's Implementation of E.O. 13175*, states: "Tribes are not interest groups. Tribes are sovereign entities with indigenous perspectives and knowledge that can improve the quality of Federal decisions and result in better outcomes for all affected communities."[12] Consultation alone, however, is not enough to satisfy the Department's trust obligations to our Ute Indian Tribe. The Department must involve our Ute Indian Tribe as an equal sovereign government with property rights in the Colorado River Basin, including in the negotiations and decision-making process with the states and federal government. Courts have concluded that Indian tribes possess a certain degree of independent authority over matters that affect the internal and social relations of tribal life, and the use of tribal waters certainly falls under this authority.[13] The Secretary of the Interior, pursuant to 25 U.S.C. § 381, possesses responsibilities to allottees to ensure that Tribal Indian water rights are allocated in a just and equal manner.[14] However, as the beneficial owners of our Tribal trust property, including our Colorado River Indian water rights, federal law has established that we have jurisdiction and authority over these assets.[15]

In fulfillment of the Department's stated principle of "promot[ing] tribal control and self-determination over tribal trust lands and resources,"[16] Interior can only satisfy its trust obligations to the Ute Indian Tribe by recognizing the valuable role the Ute Indian Tribe has as a steward of the Colorado River and supporting efforts to secure, preserve, protect, develop, and use its Indian waters required to make the Ute Indian Tribe's Reservation a permanent homeland.

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[9] Off. of the Assistant Sec'y–Indian Affs., U.S. Dep't of the Interior, 303 DM 2—Principles for Managing Indian Trust Assets §2.7 (Oct. 31, 2000), https://www.doi.gov/document-library/departmental-manual/303-dm-2-principles-managing-indian-trust-assets.

[10] 42 U.S.C. § 4321, *et seq*.

[11] Exec. Order No. 13175, *Consultation and Coordination With Indian Tribal Governments*, 65 Fed. Reg. 67,249 (Nov. 6, 2000).

[12] U.S. Dep't of the Interior, *Secretary of the Interior's Detailed Plan for Improving Interior's Implementation of E.O. 13175: Consultation and Coordination with Indian Tribal Governments* (Nov. 2021).

[13] *City of Albuquerque v. Browner*, 97 F.3d 415, 418 (1996) (concluding that water rights and government jurisdiction are two of the four critical elements necessary for tribal sovereignty).

[14] *Colville Confederated Tribes v. Walton*, 460 F. Supp. 1320 (E.D. Wash. 1978), *aff'd* in part and *rev'd* on other grounds, 647 F.2d 42 (9th Cir. 1981), *cert. den*. 454 U.S. 1092 (1981).

[15] *See, e.g., Colville Confederated Tribes v. Walton,* 647 F.2d 42, 52 (9th Cir. 1981).

[16] 303 DM 2 §2.7; and 25 U.S.C. § 5302.

A. NEPA Concerns

On February 25, 2025, the Council on Environmental Quality published an interim final rule, effective April 11, 2025, that would remove all regulations implementing the National Environmental Policy Act from the Code of Federal Regulations.[17] The Department published an interim final rule, partially rescinding its NEPA regulations and maintaining its procedures within the NEPA Handbook.[18] Accordingly, the review of the DEIS will be governed by NEPA, the Department's NEPA Handbook, and caselaw.

NEPA and the Department's NEPA Handbook require federal agencies to prepare an EIS for major federal actions significantly affecting the "quality of the human environment."[19] Indian Trust Assets fall squarely within this scope, as the alterations to the administration of Lake Powell and Lake Mead, as contemplated in the DEIS, could affect Tribal water rights, availability, and storage, as well as enjoyment and use of Tribal lands, and the productivity of our Tribal agricultural land. Any proposed alternative that impairs Indian Trust Assets is not worth considering as a viable alternative.

NEPA mandates that federal agencies take a "hard look"[20] at the environmental consequences of their actions, including direct, indirect, and cumulative effects. For Indian Trust Assets, this means that a rigorous analysis must be done to see how operational changes will affect these assets, such as the implementation of alternatives that contemplate the continued and/or modified use of Colorado River Storage Project Act ("CRSP") Upper Initial Units for Lake Powell protection. The geographic scope of Reclamation's analysis is much too narrow. Our Reservation lies just south of Flaming Gorge Reservoir, and additional water releases from this reservoir could have substantial effects on the Ute Indian Tribe and its trust assets, including Reservation lands and Tribal water rights. Those effects must be analyzed, however, the level of description in the DEIS makes that nearly impossible.

The NEPA process for these Post-2026 Guidelines began with Reclamation's Scoping Report that contained the Statement of Purpose and Need ("Purpose and Need").[21] The Purpose and Need outlined Reclamation's basis for proposing the action. An EIS must evaluate "all 'reasonable [and] feasible' alternatives in light of the ultimate purpose and need of the project."[22] Generally, the "need" for the action may be understood as the underlying problem the agency is trying to address with the action, and the "purpose" refers to the goal that the agency is trying to achieve. The "purpose and need" statement is critical because it describes the scope of reasonable alternatives under 40 C.F.R. §1502.13. In 2023, Reclamation stated, *"[t]he Department has determined a need for guidelines that provide flexibility and predictability for Basin Tribes to remain able to benefit from their water rights and have an opportunity to participate in voluntary conservation programs.*"[23] In that same 2023 Scoping Report, Reclamation stated a purpose of

[17] 90 CFR 10610 (February 25, 2025).
[18] 90 CFR 29498 (July 3, 2025).
[19] 42 U.S.C. § 4332(c) and 516 DM 1 § 2.1(a).
[20] *Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt.*, 387 F.3d 989, 993 (9th Cir. 2004).
[21] U.S. Bureau of Reclamation, *Post-2026 Colorado River Reservoir Operations Scoping Summary Report* 61 (Oct. 2023).
[22] *City of Carmel-by-the-Sea v. U.S. Dep't of Transp.,* 123 F. 1142, 1155 (9th Cir. 1997).
[23] *Id*.

the proposed Federal action is to "provide new or enhanced opportunities for Basin Tribes to benefit from their water rights and 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."[24]

It is incumbent that the Department satisfy the stated purpose and need for the Federal action. The DEIS does not adequately analyze the Tribal components of the proposed Post-2026 operation and management alternatives for the Colorado River, thus it fails to address that stated purpose and need. As detailed below, the DEIS fails the stated purpose and need by failing to develop any guidelines that "provide flexibility and predictability for Basin Tribes to remain able to benefit from their water rights. . . ." This limits the Ute Indian Tribes' ability to assess the impact that any of the proposed alternatives would have on its Trust assets and other resources. As presented, the DEIS fails the stated purpose and need of giving the tribe "flexibility and predictability" in benefitting from its Indian water rights. This failure may have been due in part by Reclamation's continued statement at multiple meetings related to the development of the DEIS that the focus of the scope of its analysis was from Lake Powell south to Mexico. This automatically excludes the concerns of our Ute Indian Tribe related to our Reservation resources, including our Indian water rights' development and use.

An EIS is inadequate if it is predicated upon superficial analysis or dismisses indirect effects,[25] such as increased system vulnerability to climate variability. Section 3.7 of the Department's NEPA Handbook requires that the research and information presented in an Environmental Impact Statement be complete. A bureau will undertake new scientific and technical research if the bureau "anticipates that the results of that research will be essential to a reasoned choice among alternatives."[26] The Final EIS must expand the scope of the studied area and conduct the research necessary to inform our Ute Indian Tribe about the impacts that the alternatives pose to the Ute Indian Tribe's trust assets and resources. The DEIS is insufficient to ascertain the effects that the proposed alternatives would have on the Ute Indian Tribe's reserved water rights. An omission of this analysis would violate NEPA's informational purpose and could lead to the vacating of the Environmental Assessment.[27]

Similarly, a flawed analysis of the cumulative or indirect impacts could render the EIS arbitrary under the Administrative Procedure Act, 5 U.S.C. § 706(2)(A). If the cumulative effects to the Ute Indian Tribe's Indian Trust Assets are not accurately assessed, then the analysis is incomplete. "A proper consideration of the cumulative impacts of a project requires 'some quantified or detailed information; … [g]eneral statements about possible effects and some risk do not constitute a hard look absent a justification regarding why more definitive information could not be provided.'"[28] "The analysis 'must be more than perfunctory; it must provide a useful

[24] *Id*.
[25] *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360 (1989) (holding that an agency must engage in a "hard look" of the proposed undertaking and alternatives, not substitute its own judgement).
[26] U.S. Dep't of the Interior, *Handbook of National Environmental Policy Act Implementing Procedures*, 516 DM 1, § 3.7(A).
[27] *See Standing Rock Sioux Tribe v. U.S. Army Corps of Eng'rs.*, 255 F. Supp. 3d 101, 133-134 (D.D.C. 2017) (holding that the Army Corps of Engineers' Environmental Assessment did not adequately assess the effects of an oil spill on the Tribe's fishing and hunting rights).
[28] *Klamath-Siskiyou Wildlands Center v. Bureau of Land Management*, 386 F.3d 989, 993 (9th Cir. 2004) (quoting *Ocean Advocates v. U.S. Army Corps of Eng'rs*, 361 F.3d 1108, 1128 (9th Cir. 2004)).

analysis of the cumulative impacts of past, present, and future projects.'" In *Klamath-Siskiyou*, the Ninth Circuit held that the Environmental Assessments did not adequately discuss the potential cumulative impacts posed and reversed the summary judgment entered in favor of the Bureau of Land Management and remanded the case.

The impacts on the Ute Indian Tribe's resources need to be analyzed in the Final EIS. Appendix 13, Tribal Resources, gives an analysis of the impacts to various tribal resources. However, the study area effectively excludes any effects' analysis impacting the Ute Indian Tribe because the study area only "extends from the northern extent of Lake Powell to the Southerly International Boundary ("SIB") and consists of the Colorado River channel from bank to bank except from Glen Canyon Dam to Lake Mead, where it stretches from canyon rim to canyon rim, as well as a 0.5-mile buffer on either side of the riverbank or canyon rim." Technical Appendix 13, Tribal Resources, 13-1. This scope is consistent with the geographic scope analyzed in the 2007 Interim Guidelines FEIS.[29] The DEIS does note that activities such as Upper Basin conservation and operations at CRSP Upper Initial Units are also contemplated yet the DEIS is lacking in any effects' analysis on the Ute Indian Tribe's Indian water rights.[30] As such, the analysis of the areas that should be analyzed for how any proposed federal action affects the environment and any ITAs should be expanded to include areas above Lake Powell.

Similarly, Technical Appendix 18, Indian Trust Assets, is insufficient in analyzing the impacts that would occur to our Ute Indian Tribe. In the analysis of effects to Indian Trust Lands, the DEIS simply states that "[i]n the Upper Basin, none of the alternatives would directly affect agricultural land. Some alternatives would provide new mechanisms for conserving and storing water for Upper Basin tribes . . ." Technical Appendix 18, 18-33. This throwaway comment, without any analysis is not a proper consideration of the cumulative impacts that any alternative would have upon Indian Trust Lands. Reclamation must include an analysis of the cumulative and indirect effects to ITAs – simply stating that none of the alternatives would directly affect ITAs is insufficient.

B. Tribal Water Rights

In *Winters,* the Supreme Court established the doctrine of implied Indian water rights. The Court determined that when the United States set aside lands as Indian reservations, it intended to provide a suitable homeland for the Indians so they could change from their nomadic ways to "become a pastoral and civilized people."[31] The Court further noted that "[i]t can be said without overstatement that when Indians were put on these reservations they were not considered to be located in the most desirable area of the Nation."[32] The federal government was "aware of the arid nature of the region, and of the fact that water is "essential to the life of the Indian people and to the animals they hunted and the crops they raised."[33] Further, because the reservation lands were arid and "practically valueless" without irrigation, the *Winters* Court held that Indians were entitled

[29] U.S. Dep't. of the Interior, Bureau of Reclamation, *Post-2026 Colorado River Reservoir Operations Draft Environmental Impact Statement* Vol. 1: Chapter 3 (Affected Environment and Environmental Consequences) at 3-1 (Jan. 2026), https://www.usbr.gov/ColoradoRiverBasin/post2026/draft-eis/docs/vol-1/P26-DEIS-3-Ch3.pdf
[30] *Id*. at 3-2.
[31] *Winters* at 576.
[32] *Arizona v. California*, 373 U.S. 546, 598 (1963).
[33] *Id.* at 599.

to an adequate supply of water. Under the principles of the *Winters* doctrine, our Ute Indian Tribe holds entitlement to 554,599 acre-feet per year by diversion of federally reserved Indian water rights in the Upper Colorado River basin, much of it connected to the Green River Basin, yet a significant portion remains unused and undeveloped due to chronic underfunding and mismanagement of infrastructure, such as the Bureau of Indian Affairs' Uintah Indian Irrigation Project and the lack of storage facilities. The Bureau of Indian Affairs stated almost 20 years ago that the Uintah Indian Irrigation Project has "deferred maintenance needs in excess of $86.1 million to bring the aging, deteriorated infrastructure up to current standards."[34] This is a gross underestimate of the current total need for repair and rehabilitation of this BIA Project. Additionally, the majority of irrigated lands designated by the BIA as temporarily or permanently nonassessable are disproportionately individual Tribal member trust lands or Tribal-owned trust lands, as opposed to the non-Indian fee lands receiving Tribal water. The Ute Indian Tribe's *Winters* right and certainty of a reservation homeland cannot be further eroded by Federal action to allocate Colorado River water to users with more junior water rights.

Current federal mismanagement leaves our Indian reserved water flowing downstream undeveloped and uncompensated, [35] subsidizing Lower Basin overuse while the Upper Basin faces the possibility of curtailments. The potential water curtailments contained within the DEIS represent a continuation of systemic inequities that could render the document inadequate if Reclamation fails to rigorously account for these realities in our ITAs. To meet its trust responsibility to the Ute Indian Tribe, the United States must take affirmative actions to actively protect the seniority of our Tribal water rights, whether the water rights are unused or undeveloped.

Our Indian reserved water rights are among the most senior in the basin with a priority right of 1861. For reference, the State of Utah was admitted to the United States in 1896. The Ute Indian Tribe's senior water rights were decreed in part by federal courts in the 1920s and affirmed through agreements such as our 1965 Deferral Agreement with the United States and State of Utah. Even still, the Ute Indian Tribe has developed far less than our entitlement due to federal neglect.[36] While our Indian water continues to flow downstream without compensation, exacerbating water shortages in the Upper Basin, the Lower Basin states continue to overconsume water. Both the Ute Indian Tribe and the federal government have recognized the need for the Ute Indian Tribe to have more storage capabilities for its water, with agreements such as the 1965 Deferral Agreement reflecting the understanding that full development of the Ute Indian Tribe's water rights is dependent on the construction of more storage facilities in Utah. The United States could fulfill its promises to the Ute Indian Tribe by allowing it to store some of its Indian water within Flaming Gorge.

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[34] U.S. Dept. of the Interior, Bureau of Indian Affairs, Western Region, *Operation and Maintenance Guidelines: Uintah Indian Irrigation Project, Uintah and Ouray Agency* (Dec. 23, 2008).

[35] Second Amended Complaint, *Ute Indian Tribe of the Uintah and Ouray Indian Reservation v. United States*, No. 1:18-cv-00359-AOB at ¶ 38 (Fed. Cl. Dec. 06, 2024), ECF No. 65 (stating that the Uintah Indian Irrigation Project only serves 61,000 acres out of 88,000 acres of allotted lands, resulting in the waste of the Tribe's water rights and lost economic opportunities).

[36] *Id*. at ¶ 40.

While federally reserved Indian water rights and the federal government's trustee relationship related to it exist outside of the 1922 Colorado River Compact ("Compact"),[37] changes to water management along the Colorado River affect all users. Reclamation has suggested that the DEIS modeling is inclusive of providing new and enhanced opportunities for Ute Indian Tribes to benefit from our Indian water rights and provide flexibility and predictability to accommodate future needs and growth supported by Colorado River water supplies. Based on a review of the DEIS, such statements seem more aspirational than supported in any way by the modeling and analysis of the proposed alternatives. At the expense of the Ute Indian Tribe's most senior water rights and without a Tribal priority for participation in a new storage pools program, Reclamation appears to have limited its modeling of the Upper Basin conservation and "water savings" opportunities to a limited volume for such new storage pools in Lake Powell, ranging from 200-500 thousand acre-feet per year across the alternatives, with the benefit going to the Lower Basin interests.

The conservation pools being contemplated at Lake Powell also raise Tribal-specific concerns.[38] The United States must ensure Ute Indian Tribes' ability to determine how and when to use their Indian water rights through a portfolio of flexible tools for the storage, delivery, and accounting of system and non-system water. These tools must include clear opportunities for voluntary, compensated participation by tribes for activities that recognize the unique characteristics of our Ute Indian Tribe's Indian water rights and tribal authority, and any savings or storage pools established in Lake Powell and/or Lake Mead. The DEIS lacks clarity in what happens to contributed Tribal water in a savings pool. Appendix B, Modeling Assumptions: Lake Powell and Lake Mead Storage and Delivery of Conserved Water, analyzes various storage conditions under the Enhanced Coordination Alternative. The DEIS states that "[s]torage credits in the Lake Powell conservation pool are assumed to be converted to system water and combined with Lower Basin shortages to provide system benefits based on the shortage." Appendix B, B-21. The Appendix is silent on other considerations for Tribal water contributed to a savings pool. It is unclear how priority of *the most senior waters* is maintained in a savings pool; thus, it is unclear whether tribes will be able to rely on water to meet tribal needs for preserving cultural resources and practices, protecting native fish populations, sustaining riparian and riverine habitats, and supporting recreational activities.

These concerns remain for the DEIS' analysis of the Maximum Operational Flexibility Alternative within Appendix B, which also states that "conserved water is assumed to be converted to system water based on the shortage curve described in Chapter 2." Appendix B, B-36. Water would also be able to be released in the Supply-Driven Alternative, stating that "[w]ater in the Lake Powell conservation pool could be released if needed to meet the determined water year volume." Appendix B, B-41. Without more specificity as to the operations of these savings pools, the DEIS fails to properly address the purpose and need regarding tribal concerns contained in Chapter 1. The Department has determined the need for greater tribal participation within Colorado River management, but if the savings pools are simply vehicles for using tribal water to satisfy Compact deliveries to more junior water users, then the Department is not addressing tribal

[37] *See* 1922 Colorado River Compact, Article VII, stating that "[n]othing in this compact shall be construed as affecting the obligations of the United States of America to Indian tribes."
[38] *See e.g., Post-2026 Colorado River Reservoir Operations Draft Environmental Statement* Volume 1: Chapter 2 at 2-21, 2-29, 2-33.

concerns regarding the Colorado River and not satisfying the stated "purpose and need" for the undertaking.

The United States, as trustee of the Ute Indian Tribe's federally reserved Indian water rights, must protect this ITA. As stated above, our Tribal water rights are not subordinate to the Colorado River Compact because they exist outside the agreement—tribes were not invited nor did they participate in this agreement. Any alternative that allows Tribal water to be absorbed into system operations without voluntary Ute Indian Tribal consent and compensation would diminish Ute Indian Tribal ITA interests, shift hydrologic risk onto the tribes, and undermine incentives for voluntary conservation and contributions to a savings pool program. Conserved, voluntarily stored, and deferred tribal water must remain distinctly accounted for by an agreement with the tribes.

In any savings pool program, Tribal contributions cannot be treated the same as non-Indian Intentionally Created Surplus ("ICS") or State system conservation contributions. The Ute Indian Tribe has advocated for the creation of a savings pool in Lake Powell where the water contributed by the Ute Indian Tribe retains the attributes of Indian reserved water rights. In our Ute Indian Tribe's Flexible Tools Concept Paper that was submitted to the Bureau of Reclamation, the Tribe proposed a savings pool that would accept the Ute Indian Tribe's water on a temporary, voluntary, and compensated basis. The Ute Indian Tribe has also supported the creation of a Tribal Deferred Development Program wherein the Ute Indian Tribe would be compensated for deferring the development of its quantified Tribal water rights for a specified period of time. The development of flexible tools such as these would give tribes, which have rights to over twenty-five percent of the Colorado River's annual flow, the opportunity to benefit from their water rights, in fulfillment of one of the purpose and needs of the DEIS.

Federally reserved Indian water rights have unique characteristics that make them distinct from state-based water rights. There is no clarity, certainty, or even mention of how the Department will protect the characteristics of tribes, such as ours, who have reserved Indian water rights that could be contributed to a savings pool in Lake Powell, mentioned above, and negotiate agreements that fairly compensate tribes when key characteristics, such as senior priorities, would be modified. Tribal water rights must not be converted to system water solely based on reservoir elevation triggers if it is not negotiated with the Ute Indian Tribe. And Ute Indian Tribal unused and undeveloped water must not be used to backfill Compact obligations without express Tribal agreement, compensation, and ability for the Ute Indian Tribe to reclaim their assets for their own community benefit.

The Final EIS and implementation guidelines must: (1) establish segregated accounting for contributions of Tribal reserved water rights—a very important Trust Asset; (2) guarantee defined recovery rights and timelines for this tribal water; (3) prohibit involuntary use or conversion to "system water" without Tribal consent; (4) clarify that contributed Tribal water does not alter priority status; and (5) confirm that participation is strictly voluntary and compensated.

C. National Historical Preservation Act Analysis

The ancestors of the present day Ute Indian Tribe used the Colorado River and its Basin lands for not only irrigation, but also for cultural, religious and resource purposes—uses that

continue to the present day. Through the Ute Indian Tribe's Tribal Historic Preservation Office, the Ute Indian Tribe has been able to participate in projects such as the Ute Ethnobotanical Learning Garden, which is an ethnobotanical garden that both protects flora that the Utes have used since time immemorial and educates the public on the Ute Indian Tribes' direct interrelationship with plants. The Ute Indian Tribe's cultural ties to its lands are endless. These lands must be protected, given their cultural and religious significance to the Ute Indian Tribe. Here, the United States is proposing to modify the availability of water in the Ute Indian Tribe's current homeland and ancestral grounds. The modification of water availability implicates the Ute Indian Tribe's cultural resources interests.

Section 106 of the the National Historical Preservation Act ("NHPA"), required that prior to any federal undertaking, "[t]he head of any Federal agency . . . shall take into account the effect of the undertaking on any historic property,"[39] and afford Indian tribes with reasonable opportunity to comment with regard to the undertaking."[40] An historic property is "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior."[41] The term includes "properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria."[42] Under NHPA, a federal agency must make a reasonable and good faith effort to identify historic properties; determine whether identified properties are eligible for listing on the National Register based on criteria in 36 C.F.R. § 60.4; assess the effects of the undertaking on any eligible historic properties found and avoid or mitigate any adverse effects.[43]

Any undertaking that has the potential to affect historic properties on Tribal lands necessitates consultation with the tribe having jurisdiction over such lands.[44] Water has tremendous cultural significance to the Ute Indian Tribe and should be considered a "historic property" for purposes of NHPA. It is part of our cultural practices and heritage. Water provides life for everything on the Reservation. Any changes to the operations along the entire Colorado River Basin need to be studied for how they could impact the important cultural properties of our Ute Indian Tribe. Under the NHPA, an undertaking has an "effect" when the undertaking "may alter characteristics of the property that may qualify the property for inclusion in the National Register…[including] alteration to features of a property's location, setting or use…"[45] An "effect" is "adverse" when it may "diminish the integrity of the property's location…setting…feeling, or association."[46] Examples of "adverse effects" include physical destruction, the introduction of visual, audible or atmospheric elements that are out of character with the property or alter its setting, and transferring the property."[47] The Department will be breaching its trust duties if it does not analyze the impacts that an alternative could have on the Ute Indian Tribe's historic

[39] 54 U.S.C. § 306108.
[40] *Id.*
[41] 36 C.F.R. § 800.16(l)(1).
[42] *Id*.
[43] *See Muckleshoot Indian Tribe v. United States Forest Service*, 177 F.3d 800 (9th Cir. 1999).
[44] 54 U.S.C. § 302706(b).
[45] 36 C.F.R. § 800.9(a).
[46] 36 C.F.R. §800.9(b).
[47] *Id.*

properties. This DEIS does not adequately evaluate the potential adverse effects on the Ute Indian Tribe's interests in cultural properties relating to the water in the Colorado River system.

Technical Appendix 11, Cultural Resources, details the DEIS' analysis of Tribal cultural resources. The study area for the analysis was from the northern extent of Lake Powell to the Southerly International Boundary, mirroring the geographic scope of other analyses in the DEIS. This study area explicitly excludes the Ute Indian Tribe's homeland, its Reservation and the footprint of its Indian reserved water. The Ute Indian Tribe's concerns about the limited scope of the study area in other Technical Appendixes, such as Appendixes 13 and 18, are also voiced here. Reclamation must expand the scope of the cultural resources study area to include areas above Lake Powell when an alternative contemplates taking an action above Lake Powell. It is insufficient to narrow the Area of Potential Effects to the area bordering the reservoir if the management alternatives will result in a net decrease of water availability above Lake Powell. If an alternative could impact Tribal cultural resources, Reclamation must consult with the Ute Indian Tribe, in accordance with the NHPA's implementation regulations, codified at 36 C.F.R. § 800, to mitigate the impacts that a chosen alternative may have.[48]

TECHNICAL ANALYSIS

Herein, the Ute Indian Tribe presents its views on some sections of the Draft Environmental Impact Statement from the U.S. Bureau of Reclamation. The Ute Indian Tribe's Uintah and Ouray Reservation in its entirety is located within the Colorado River Basin – consequently, the entire Indian water rights of the Ute Indian Tribe are derived from that basin. The Reservation occupies more than four million acres, and the fate of the Ute Indian Tribe's Indian water rights is limited to that of only one river basin (the Colorado River Basin). The Colorado River Basin, especially since the 21st century, has been faced with severe and persistent drought that has caused the average flow of the river to greatly decrease. Hence, the imbalance between water demand and water supply has been widening and chances are that the dwindling nature of the flows of the Colorado River Basin will continue, on average, over the long term.

Along the Colorado River Basin, there are about 40 million people, five million irrigated acres, the production of thousands of megawatts of hydropower generation, and the conservation of numerous ecological and recreation areas. The seven southwest states, thirty Indian Tribes and a portion of Northern Mexico are partially or wholly dependent on the water of this river basin. About 92% of the flow of the Colorado River is generated in the Upper Basin, where the Reservation is located. However, in the 1922 Compact, and following agreements (which did not include any of the Indian Tribes), 100% of the flow generated in the Upper Basin of the River was apportioned between the Upper Basin states, Lower Basin states and the Republic of Mexico – that is, with no contribution of the Lower Basin states as part of the apportioned water.

Issue

On page 1-6 of the DEIS, it is stated that: "Imbalance between water supply and demand will be exacerbated by increasingly likely low-runoff conditions: The Basin is experiencing increased aridity due to climate variability, and long-term drought and low-runoff conditions are

[48] *Hoonah Indian Association v. Morrison*, 170 F.3d 1223 (9th Cir. 1999).

expected in the future. These conditions will exacerbate the now widely recognized imbalance between water supply and demand in the Basin. Robust and flexible guidelines are needed to manage the Colorado River system and its resources under a broad range of potential future hydrologic conditions."

Comment

We would like to thank Reclamation for undertaking the extraordinarily complex task of assembling the relevant data and information, conducting deep and meaningful analysis of the data, drafting the DEIS document, and distributing it to the public on time. The Ute Indian Tribe has some technical comments that the Ute Indian Tribe believes would help enrich the DEIS.

The first Ute Indian Tribe comment deals with hydrology. Our principal hydrologic comments concentrate on one of the statements in the DEIS – a statement that is central to our concern regarding the treatment of hydrology in the DEIS. The statement is: "The Basin is experiencing increased aridity due to climate variability, and long-term drought and low-runoff conditions are expected in the future."

We agree with most of the statement. However, we would like to see a modified sentence primarily because this statement is central for people to gain a good understanding as to the great magnitude of the problem and the hydrologic problem that we are facing in the Colorado River Basin, especially after the turn of the century, is not like the hydrology that we have experienced in the past, which was characterized by high flows for a number of years followed by low-flow years, and so on in cycles. Based on historic records of time series hydrologic data in the basin, it might be natural to expect that a cycle of wet years will follow a period of dry years.

However, the hydrologic phenomenon that is currently manifested in the Colorado River Basin is not in congruence with the cyclical nature that we are historically accustomed to. In other words, indications from many sources are that the long and persistent drought that we are presently experiencing will continue in the future with fewer wet years. In fact, based on studies conducted by climate scientists in recent years, not only will the flow of the river continue having a trend of relative drought, but indications are that average precipitation will continue to decrease, resulting in lower water availability in the basin over the long term. In short, during the past quarter century, the cyclical nature of Colorado River Basin hydrology has been gradually and inexorably dominated by sustained aridity over the long term, resulting in a hydrology dominated by historically low flows.

Based on the above, the portion of the BOR statement that reads "climate variability" does not fully represent the climatic evidence of persistent drought. The climate experienced in the last 25 years cannot be characterized as such because the recent past climate is producing a consistent long-term drought dominated by relatively low average annual runoff in which neither drought nor runoff are as variable as they were in the past. It follows that we recommend that the climate variability portion of the BOR statement be modified to read as follows: "The Basin is experiencing increased aridity due to a predominantly dry climate, and long-term drought and low-runoff conditions are expected in the future," or similar verbiage that more accurately represents the increasingly arid climatic conditions and long-term trend since the year 2000.

Clearly, the basin is experiencing climate that is becoming more consistent with severe and persistent drought, resulting in diminishing flows that are expected to continue into the foreseeable future. In recent years, based on studies conducted by scientists using high-resolution climatic models, it has been determined that higher average air temperature will occur, along with higher evaporation, not only reducing the snowpack but also reducing the water content of the snowpack. By mid-century the flow losses in the river system may exceed 20% and by the end of the 21st century as much as 35% of the river flow would be lost on average.

The primary reason for bringing up the issue of rapid increases in air temperature during recent times (since the beginning of the 21st century), in addition to the historic natural causes (including low-level "greenhouse gas" emissions), is to emphasize that recent sharp increases in air temperature have caused a surge in sublimation from the basin's snowpack, evapotranspiration from the native vegetation, and evaporation of snowmelt. These phenomena have resulted in increased average aridity, reduced runoff to the Colorado River system, and reduced groundwater recharge. This is significantly different than the historic extended droughts during the past 100 years or more. Hence, before the rapid increases in temperature long and persistent dry years were experienced, including extended dry years followed by wet years in which some of the wet years cause severe flood damage due to high floods. Unlike the historic hydrologic conditions, marked by cyclical wet and dry years, the recent hydrology is instead characterized by extended and severe drought years with increasing rare wet years. Since the overwhelming hydrologic trend is dominated by drought years as opposed to wet years, the post-2026 hydrologic analyses should be based on what has taken place in the last quarter century. That is, we are compelled to largely ignore historic hydrologic phenomena because precipitation events and air temperatures from many decades ago have limited applicability to the post-2026 hydrologic situation.

It is true that in the future it is expected that occasional wet years will take place, but the future hydrology of the basin will be largely dominated by long and severe droughts. The previous era of cyclical hydrology in the Colorado River Basin will most likely be supplanted with a more consistently dry hydrology during this century. The aridification and extended drought-driven hydrology of the Colorado River Basin will continue to persist as a result of rising average air temperatures.

For the most part, the climate and the general hydrology of the Colorado River Basin could be characterized as arid and semi-arid. In arid and semi-arid regions, as discussed above, the flow of a river depends on springtime runoff as a result of the snowpack accumulated during the winter months. Hence, a large portion of the flows in the Colorado River Basin is a result of snowmelt during an extended portion of the spring months and early summer. Since the U&O Reservation is within the Upper Basin of the Colorado River, the greatest flows of the river mainly occur during the non-irrigation season. The irrigation of lands on our Reservation primarily takes place from April to October each year. On average during the months of April, May, June and early July, for the most part there is ample amount of flow in the rivers to satisfy the crop water requirements of the Uintah Indian Irrigation Project ("UIIP") on about 78,000 acres of farmland. The UIIP is a federally owned project whereby the federal government is responsible for its operation and maintenance.

The Ute Indian Tribe's water users have been suffering for more than 120 years, primarily because their crop yield has continued to be substandard and of relatively low quality. It is very difficult for an outsider to believe and comprehend, but the fact is that our Ute Indian Tribe has been demanding water storage facilities since 1905, but to no avail. The Ute Indian Tribe has no storage capacity to capture the flows during the spring when the flow is high and to satisfy the crop water requirements during the entirety of the irrigation season. Consequently, a portion of the flow of the river that could have been stored and used later in the year by the Ute Indian Tribe is instead used by junior non-Indian water users.

The Ute Indian Tribe has a right to irrigate of an additional undeveloped 50,000 acres of future Practicably Irrigable Acreages ("PIA") lands. The Ute Indian Tribe has been asking the federal government to secure storage and irrigate those lands, and the government has been promising it will help develop storage facilities and the necessary irrigation infrastructure, but again, to no avail. The water that would have been used to irrigate those 50,000 acres of land continue downstream again to be used for junior non-Indian water right holders, as mentioned above. Now the BOR/DOI is asking the Ute Indian Tribe to comment on the Draft EIS. It is crystal clear that the Ute Indian Tribe has historically been treated in an unfair and unjust status. How can the BOR/DOI under the Draft EIS take measures to fulfill its obligation and develop storage facilities that have been promised over and over again by the government?

The Ute Indian Tribe acknowledges that Reclamation is tasked with a highly complex and complicated undertaking to ensure the satisfaction of the water needs of the seven basin states, thirty Indian Tribes, and the portion of Mexico within the Colorado River Basin. These water needs include the environmental aspects of the river and its environs, ensuring hydropower generation, and keeping the structural integrity of the major dams along the river. Colorado River water users include 40 million people, about 5 million irrigated acreages that help support food security of the nation, hydropower generation in the thousands of megawatts, and the ecosystem of the Colorado River Basin. These uses must be protected to the extent possible, with fairness and clearly stated priorities.

Implementing the Post-2026 DEIS, Reclamation – with the active assistance of the Upper and Lower Basin states, Upper and Lower Basin Indian Tribes, environmentalists, and the public in general - is a task that is enormously difficult, indeed. But the development and analysis of five broad alternatives designed to apportion the decreasing water supply, accounting for the complex legal considerations of the Colorado River Basin, is intended to guide decision-making.

To develop a fair and lasting solution to the complex issues of the Colorado River Basin, it is important to clarify to all stakeholders, including the United States Congress and the federal government, that we are dealing with a hydrology that is expected to continue to be overwhelmed with severe long-term drought. Unlike the historic hydrology from many decades ago, the current and future hydrology of the Colorado River is expected to manifest increasing drought. In other words, the inescapable fact remains that the future of Colorado River hydrology will exhibit severe aridity in the long term while the demand for water by basin stakeholders will continue to increase. Gradually, it is envisioned that a large portion of businesses in the Colorado River Basin, and even some businesses outside the basin that depend on the Colorado River water supplies, will be forced to relocate or go out of business.

As discussed above, in the not-so-distant future, based on credible scientific studies, the Colorado River water supply will continue to diminish over the long term and is not expected to return to the hydrologic conditions that were seen in the early decades of the Colorado River Compact among the seven states, Mexico, and the U.S. government. Consequently, the growth of the economy of much of the southwestern U.S. would gradually stagnate and the region will no longer be attractive for business investment, nor will people want to reside in the region because water will be expensive and hard to come by.

Some people believe that we are in a period of dry climate and that a wet cycle will soon replace the long dry climate of recent decades. Again, credible studies make it clear that the chances of a wet cycle replacing the persistent dry climate are slim. Before it is too late, the nation should realize that the hydrologic situation in the southwest is an existential issue to the livelihood of millions of people and thousands of businesses. Furthermore, as the water supply in the basin continues to diminish, the nation may eventually lose its food security and be required to import more food from other countries.

We believe Reclamation has a responsibility to make it clear to Congress and the current administration that the reduction in water availability of the Colorado River Basin is real and that it is time to seek sustainable solutions. Temporary measures on how to apportion the ever-decreasing water supply to the seven states, thirty Indian Tribes, and Mexico every few years is not a solution – it is only postponing the reckoning that the stakeholders must face. It is time to acknowledge that the diminishing nature of the Colorado River is serious enough to become a national issue and requires a long-term solution.

In conclusion, the issue of the continually diminishing water supplies of the Colorado River is not limited to Reclamation or the Secretary. We believe the dwindling nature of the Colorado River Basin water supply is a national issue because a combined total annual industrial output of $1 trillion is at stake and the administration of the United States of America and Congress should take this issue seriously to address the problems and help develop a lasting solution.

Issue

Our Reservation, home of the Ute Indian Tribe, is part and parcel of the Upper Colorado River watershed area that is partially or fully providing water for all the stakeholders mentioned above. The Ute Indian Tribe has an Indian reserved water right representing about 130,000 acres of historically, presently, and future Practicably Irrigable Acreages ("PIA"). Fully aware and, in fact, experiencing the decline of Colorado River Basin water availability, the Ute Tribal Business Committee has intensively worked to offer its contributions based on long historic experience by becoming a member of the Upper Colorado River Commission ("UCRC"), but the Ute Indian Tribe's benevolence was answered without any tangible results. At this juncture, after the rejection of our Ute Indian Tribe's generosity to work hand-in-hand with the UCRC, the Ute Indian Tribe was requested to provide comments on the DEIS. The Ute Indian Tribe still strongly believes that the Upper Basin Tribes could provide valuable qualitative historic knowledge and their present-day Tribal technical and legal perspective and assistance to help develop fair and reasonable management guidelines for the management to the Colorado River Basin. As our ancestors of the

region experienced, we have known and experienced, at times, when the Colorado River was roaring wildly, carrying rocks and trees and anything else in its path, as well as times when the flow of the river was so low that a person could easily cross it on foot or on horseback from one side of the river to the other.

Comment

Given the above short introduction of the Ute Indian Tribe and its intimate relationship with the Colorado River Basin, we need to make it abundantly clear that the Colorado River Basin waters are an existential asset to the Ute Indian Tribe, without which our future generations would have little or no water resources on which to survive. Without sufficient water where the Ute Indian Tribe resides, the Reservation would be of no value to the Tribal members. What do we mean when we say that the Reservation would be of no value to the Ute Indian Tribal members with insufficient water for its inhabitants? After constricting our land holdings to a much smaller area than we originally occupied, which is the Reservation as we know it now, we were told by the federal government that we must quantify our water rights on a very strict quantification methodology called Practicably Irrigable Acreage ("PIA"), which are lands that can sustain long-term irrigation and that are economically profitable to irrigate – these are called PIA lands.

In other words, the PIA lands will consume irrigation water sufficient for the Ute Indian Tribe to sustain a permanent homeland where, with the amount of water used to attain PIA, our Ute Indian Tribe can lead a decent life in perpetuity for all the generations to come.

One of the limitations of the PIA quantification for Indian Tribes' water rights is that Indian Tribes, under federal law, cannot claim additional Indian reserved water rights once they have established the PIA-based quantity of their Indian water rights. So, in the situation of the Ute Indian Tribe where our Reservation is part of the watershed that generates the Colorado River water supply, we now know that we have quantified water rights for the irrigation of 130,000 PIA lands. We were promised that our PIA-quantified water rights will help fulfill our permanent homeland and economic status. In recent meetings with Reclamation, we have been assured that our quantified Indian water rights will not be reduced or encumbered under the Post-2026 guidelines—that they will be protected for our Ute Indian Tribe's development and use. However, the DEIS does not explicitly provide for this federal government's protection. You did not accurately model our Ute Indian Tribe's quantified Indian water rights. How do we ensure our permanent homeland if we lose access to our legal water rights? To sum it up, based on the above discussion, there are serious concerns that we might not be able to retain access to sufficient water to irrigate our 130,000 PIA acres, not to mention for our domestic, culinary, and stock water uses. How can Reclamation and the Department of the Interior help us protect our established water right under the DEIS?

Issue

On TA 3, Hydrologic Resources, TA 3.1 Affected Environment (page 3-1) it is stated that: "The Colorado River has been divided into nine district reaches along the study area. These reaches include the full pool Lake Powell (downstream of Gypsum Canyon) to Glen Canyon Dam.

Not included in the study area are reservoirs upstream of Lake Powell, the Salton Sea, and portions of northwestern Mexico that are operated independently."

Comment

As clarified above, the Colorado River has been divided into nine reaches that are considered in the area of study related to the affected hydrologic resources of the river basin. North of Lake Powell, where the Reservation of the Ute Indian Tribe is located, is not considered to be impacted in the draft environment analysis. Hence, there will not be any Reclamation or State activities upstream of Lake Powell that warrant concern for the affected environment in terms of hydrologic resources. Only those nine distinct reaches mentioned on TA 3 are potentially affected, according to the DEIS. Page 3-1 of the DEIS does not include our Reservation, nor does it consider any impact analysis to Native American assets or resources. Therefore, it is the understanding of the Ute Indian Tribe that upstream of the northern portion of Lake Powell reaches where the Reservation of the Ute Indian Tribe is located will not be included in the potential impact analysis within the Draft EIS purposes and objectives.

In addition, the BOR has included conservation pools in Lake Powell, in the Enhanced Coordination Alternative up to 200 kaf per year for the first 5 years, up to 275 kaf per year for the second 5 years, and up to 350 kaf starting in year 11. In addition, under the Maximum Operational Alternative in the Upper Basin 200 kaf annual conservation pool has been included. Are these conservation pools for both Tribal and non-Tribal water users of the Upper Basin or only for Upper Basin Tribes? Has Reclamation modeled the above-mentioned conservation pools, among others, to determine the various impacts of the conserved pool water stored in Lake Powell?

Issue

In Appendix H, Sensitivity Analysis-Effects of Demand Schedule Assumptions on Modeled Unused Tribal Water Available for Storage in Enhanced Coordination Alternative, on page H-1, it clarifies that in the Enhanced Coordination Alternative, the unused Tribal water use is expected to be stored in the Lake Powell Conservation Pool and the unused Tribal water of the Lower Basin Tribes will be stored in the Lake Mead Protection Pool. The document continues, noting that there are two methodologies for calculating unused water volumes under the two-demand scenario: "The first scenario is based on baseline demands, which is used in the resource analysis for the Enhanced Coordination Alternative and the second scenario assumes the demands remain near historical (i.e. 2027) levels throughout the simulation period, providing the upper bound on the volume of unused Tribal water that could be available for storage if future demands do not increase as projected in the baseline scenario."

Comment

In general, the Ute Indian Tribe agrees with the two methodologies or scenarios adopted by the BOR to calculate the unused Tribal water for conservation storage. As per our discussions in the past, the Ute Indian Tribe does not agree with the baseline volumes provided to Reclamation by the Upper Colorado River Commission ("UCRC") as updated in the 2016 Depletion Demand Schedule.

Second, we do not agree with the forecasted demand schedule up to 2060. As discussed in our meeting on February 13, 2026, the Ute Indian Tribe intends to provide Reclamation in the nearest future the final baseline demand and final quantified entitlements for both versions, including diversion and depletion schedules.

Again, based on our discussion on February 13, we understood that, after further calculating our unused Tribal water based on the two scenarios for the Upper Basin, and further calculating the potential volume of Upper Basin unused Tribal water available for storage in the Lake Powell Conservation Pool (5%, 10% and 15%), the final estimated unused Ute Tribal water could be stored in Lake Powell by agreement. But under the Enhanced Coordination Alternative, this was not modeled to determine the various impacts.

Finally, it is our expectation that Reclamation will model and determine the whole spectrum of potential effects, and we request modeling for our unused Tribal water that has been calculated by the BOR of 5%, 10%, and 15% - or an even higher percentage than 15% if Reclamation finds it necessary. What is the basis for selecting 5%, 10% and 15% Tribal unused water for storing in Lake Powell? In other words, why not store the entire calculated unused water or higher than 15% of the unused water?

In addition to the above discussion about unused water, the Ute Indian Tribe has an unused water right within the Uintah Indian Irrigation Project (UIIP). In the following, our unused Tribal water refers to that which was used historically but is not presently being used. For example, our Ute Indian Tribe has some 78,000 irrigated acres in three hydrologic basins, including Duchesne, Lake Fork and Uinta. These three irrigation projects are administered by the Bureau of Indian Affairs ("BIA") of the Department of the Interior. The BIA is responsible for the maintenance, operation, and repair of the irrigation infrastructure, such as the diversion structure, conveyance system, and distribution network. The three projects are more than 120 years old, and over the years the BIA has failed to adequately maintain the irrigation system infrastructure. As a result, large tracts (within the UIIP) of potentially productive (PIA) lands have been denied irrigation water for many years. Farmland that has failed to receive irrigation water is designated as temporarily or permanently non-assessable land.

Lands designated as temporarily non-assessable or permanently non-assessable are those that were historically productive irrigated lands but are presently unused due to no fault of the Ute Indian Tribe farmers. Intrinsically, the beneficial use of water by Tribal members is presently restricted because of the federal government's failure to fulfill its obligations. For the most part, the unused water may have ended up in Lake Powell, in which case it is likely that the water may have been used by the Lower Basin States and or delivered to Mexico. The long and short of it is, water users in the Lower Basin have been benefiting at a time when water could not be used by the Ute Indian Tribe's water users. Historically, the water users in the Lower Basin have benefitted from the unused Ute Indian Tribe's Indian water rights but they are reluctant to compensate our Ute Indian Tribe and, naturally, they do everything possible to continue receiving the extra Colorado River water, free of charge.

The other entity that benefits from our unused Tribal water right is the trustee of Indian Tribes: the federal government. The federal government has the responsibility and obligation to ensure that major federal infrastructure facilities are maintained in good working conditions. For example, the BOR must attempt to maintain a minimum water surface elevation of 3,490 feet above mean sea level in Lake Powell to provide adequate hydropower generation at Glen Canyon Dam. This operational criterion has been met, in part, with the unused water of the Ute Indian Tribe. Furthermore, there are issues related to dam safety that incentivize the federal government to maintain an adequate water level in Lake Powell. The federal government has never compensated the Ute Indian Tribe when, as has occurred so often, our unused Tribal water helps maintain the safety of infrastructure facilities and increases hydropower generation at the expense of the Ute Indian Tribe.

Issue

On page 13-1, TA 13, Tribal Resources at TA 13.1, Affected Environment, it is stated that: "The study area for Tribal resources is identical to that discussed in TA-11, Cultural Resources and TA-18, Indian Trust Assets Northern extent on Lake Powell to the Southerly International Boundary (SIB) and consists of the Colorado River channel from bank to bank except where it stretches from Canyon-to-Canyon rim, as well as a 0.5-mile buffer on either side of the riverbank or canyon rim. The study area coincides with the search area used for a Class I records search conducted for this Draft EIS document (Tremblay, Griset, and Rawson 2024a; Tremblay, Lemoine, et al. 2024b; Eddy et al.2024; Winslow et al.2024; Eskenazi 2024)."

Comment

The Ute Indian Tribe's understanding is that, except for the areas described above, which are all downstream of Lake Powell, there are no areas of concern for the Ute Indian Tribe in terms of the affected areas north of Lake Powell related to: (1) Tribal Cultural Resources, Technical Appendix 11; (2) Tribal Resources Technical Appendix 13; and (3) Indian Trust Assets Technical Appendix 18. Why are Tribal Cultural Resources, Tribal Resources, and Ute Indian Trust Assets not analyzed for impacts similar to the Tribal areas south of Lake Powell?

Issue

Reclamation started the post-2026 undertaking by soliciting input and collaborative engagement with a broad range of stakeholders, including Basin Tribes, Basin states, conservation organizations and several federal agencies. Input for alternative development during pre-scoping and the scoping process took place from 2022-2023, and the federal government continued working collaboratively with stakeholders and identified a range of alternatives from about 2024 to 2025. The five alternatives in the Draft EIS are designed to cover a broad range of outcomes related to the post-2026 operations and each alternative is composed of "Additional Activities Above Lake Powell (1) Guidelines to Reduce or Increase deliveries from Lake Mead; (2) Coordinated Reservoir Operations (Lake Powell and Lake Mead); (3) Storage and Delivery of Conserved system and Non-System Water; and (4) Additional Activities Above Lake Powell.

Each element is varied across the alternatives providing a reasonable and broad range of Colorado River Operations that capture an appropriate range of potential environmental impacts."

Comment

Reclamation conducted a detailed analysis as part of the DEIS for the no-action alternative and the four other alternatives and provided several detailed documents by subject matter, in addition to an executive summary. The Ute Indian Tribe reviewed all the pertinent documents that are of interest to the Ute Indian Tribe. As discussed in the earlier sections of the Ute Indian Tribe's comments, considering the declining nature of the Colorado River Basin water supply, our Tribal leaders' primary concern is to have a good understanding of the present and future status of our Ute Indian Tribe's water rights. Will the Ute Indian Tribe's water rights satisfy the Ute Indian Tribe's permanent homeland in perpetuity? This is the concern of the Ute Indian Tribe's Business Committee.

The question asked by our Tribal leadership is not easy to answer because the DEIS is not designed to answer the question posed by our leadership. The primary objective of the DEIS is not designed to specifically provide the impact of each alternative to each tribe's water rights in the Colorado River Basin. In fact, the DEIS impact analysis is primarily concentrated on sections of the river basin south of the northern portion of Lake Powell. Hence, the DEIS impact analysis on any of our Ute Indian Tribe's resources was not undertaken because all five alternatives for potential impact are located downstream of Lake Powell. However, the Ute Indian Tribe has reviewed in quite a detailed matter the relevant documents that are of interest to our Ute Indian Tribe. Based on some of the most important pertinent parameters that would provide a clue to our Ute Indian Tribe's water rights, we identified and analyzed the most important relevant information and data from Reclamation's analysis of each of the five alternatives.

Although we have reviewed a multitude of documents, figures, and tables in the DEIS, the most important and relevant necessary to respond to the Ute Indian Tribe's interest include the following figures, tables and the documents. The figures include ES-1, ES-2, ES-5, and tables ES-4, ES-5, ES-6, and ES-7. The tables and figures are attached below in this document. Based on the relevant data identified in some of the tables, figures, and documents, the Ute Indian Tribe conducted its own analysis, which is summarized in a tabular and graphical format on the following pages.

As discussed in the proceeding sections of this document, the primary objective of the DEIS is to help develop guidelines for coordinated reservoir management, primarily focused on operations of Lake Powell and Lake Mead management strategies and Lower Basin shortages including certain upstream activities related to the operation of the Upper Initial Units. However, the activities on the Upper Initial Units remain within the existing scope of the Records of Decision.

In the analysis of the various alternatives since the intended guidelines related to Lower Basin water shortages is one of the most important tenets of the DEIS undertaking, the shortage trigger, shortage start, maximum shortage and distribution of shortages at Lake Mead should be included for each of the five alternatives as shown in Figure ES-1. Likewise, for coordinated

reservoir operation, as shown in Figure ES-2, the parameters such as release factors, additional release information, release ranges and approach to coordination are understood for each of the five alternatives.

Given the above parameters and other requirements embedded in each of the five alternatives, Reclamation conducted its modeling activities and came up with important results. Those results were graphed by the BOR (Figures ES-1, ES-2, and ES-5) into a very complex but important depiction that conveys the relative performance of each of the five alternatives. The results of the five different alternatives were based on three sets of future expected hydrology, 2027-2046 in the future. These sets of hydrologic magnitudes were subdivided into three categories in millions of acre-feet (MAF) for the period from 2027 to 2046 as follows:

1) Category 1: 12 - 14 MAF
2) Category 2: 10 - 12 MAF
3) Category 3: 8.07 - 10 MAF

The graph depicts Lake Powell equal or greater than reservoir elevation. The minimum elevation where hydropower generation can take place in Glen Canyon Dam is 3,490 feet. Reclamation used 3,500 feet with a 10-ft buffer zone. In this graph one can identify the percentage of months that the water surface of Lake Powell is equal to or greater than 3,500 ft elevation. One can clearly see where the alternatives are doing well and those where they are not. Likewise, similar performances are shown where the percentage of the months in which the elevation of Lake Mead is equal to or greater than 975 ft.

The next important thing is a comparison where each of the five alternatives are tested for the percentage of years in which dead-pool-related reductions are avoided. This test is very important for those who receive water from Lake Mead. So, the test shows how often each alternative reaches the dead pool, because if the elevation of Lake Mead decreases to the dead pool level, water will not be released from Lake Mead.

The next test shows the average shortage in MAF – again, this is also for Lake Mead. The last important piece of information depicts the average volume of water released from Glen Canyon Dam, showing comparisons among the alternatives that are presented.

The subsequent set of tables depict "Vulnerability to Lake Powel Falling Below Elevation 3,500 Feet at Least Once in the First 20 Years and Comparison to Historic Conditions." In Table ES-4 there are three sets of years in which tests are made. The first is based on water years 2027-2046 with average natural flow that could cause Vulnerability (in MAF/yr).

The next test in Table ES-4 is for the "Number of Years Below Threshold 2000-2024 (Historical Data)." In this test, both the Enhanced Coordination Alternative and the Maximum Flexibility Alternative fared very well; both alternatives satisfied the specified number of years below threshold. The other alternatives failed this test.

The next test in Figure ES-4 is the Number of Years Below Threshold 1906-2024 (Historical Data). Also, in this test both Enhanced Coordination and Maximum Flexibility Alternatives satisfied the Number of Years Below Threshold 1906-2024 test, while the other three alternatives failed to satisfy it.

Table ES-5 depicts vulnerability tests for Lake Mead, like that of Lake Powell.

Table ES-6 deals with "Vulnerability to Lake Powell Falling Below Elevation 3,500 feet at Least Once in the First Five Years and Comparison to Historical Conditions". In this table, the five alternatives are tested for the vulnerability to Lake Powell falling below 3,500 feet for the water years spanning from 2027-2031 (i.e. the five years starting in 2027). In this comparison all are vulnerable, but enhanced coordination and maximum flexibility fail the test when the average natural flows are higher than 8.6 and 8.2 MAF/yr, respectively. The other three alternatives fail the test when the average natural flows are much higher than the Enhanced Coordination and Maximum Operational Flexibility Alternative. One should pay attention to the fact that the 2027-2031 average natural flow years are future years, meaning chances are that future natural flows are expected to decrease on average.

The next vulnerability test is based on number of years below threshold 2000-2024 (historical data). In these historic five years taking place after the 21st century, both Enhanced Coordination and Maximum Flexibility show zero years below the threshold, while the remaining three years manifest a variable number of years falling below threshold. The last comparative test in Table ES-6 is based on the number of years below threshold 1906 to 2024 (historical) where, again, Enhanced Coordination and Maximum Operational Flexibility test zero years falling below 3,500 ft, while all the other alternatives showed Lake Powell falling below the 3,500-ft elevation.

If one compares the results of the thresholds between 2000-2004 and 1906-2024, apart from the no action alternative, the Basic Coordination Alternative and the two versions of the Supply-Driven Alternative increased their respective number of years below the threshold from 6 to 7 years for the Basic Coordination Alternative, and 6 to 7 years for the two Supply-Driven alternatives. An increment of only one year whereby Lake Powell falls below elevation 3,500 feet, even though the 2000-2004 period is only five years and the 1906-2024 period is 219 years in duration. Therefore, even though the comparison is between five years and 219 years, the reason for only one increment is because the years from 2000 to 2004 were characterized by severe and sustained drought, and as a result the flow of the Colorado River was relatively low. The only historical recorded flow compared to 2000 to 2004 is the year 1977.

The next discussion deals with Table 1: Important Performance Tradeoffs under Different Hydrologic Regimes of each of the five alternatives. A large portion of the numbers in Table 1 are based on Figure ES-5. The remaining portion of the numbers are calculated on the numbers extracted from Figure ES-5. The hydrologic regime is forecasted flows from 2027 to 2046. The forecasted flows were divided by BOR into three categories: (1) Average Flows ranging from 12-14 MAF; (2) Dry Years ranging from 10-12 MAF; and (3) Critically Dry Years ranging from 8.07-10 MAF. Using the flows in the 3 hydrologic regime categories, among others, BOR modeled to determine the % of months Lake Powell will be greater or equal to 3,500 feet elevation, average shortage in the Lower Basin, and average release from Glen Canyon Dam. The remaining numbers

in the table were derived by the Ute Indian Tribe including, Percentages of average releases from Glen Canyon Dam, Range of flows available for Upper Basin water users, Average flows available for Upper Basin water users, Percentage of flows available for Upper Basin water users.

It is clear from Table 1, that for each of the five alternatives, the volume of water allocation and the associated percentages of the Lower Basin and Upper Basin are shown taking into consideration the percentage of months Lake Powell's elevation is greater than 3,500 ft and average shortage conditions for Lower Basin; the resulting average releases from Glen Canyon Dam and its associated percentage of total flow; calculated range of flows available for the Upper Basin; average flows available for the Upper Basin and its associated percentage of flow from the total flow are shown.

One can learn a lot from Table 1. But the most stunning revelation is that each and every alternative shows that the volume of water that the Lower Basin receives is much higher than that of the Upper Basin under all the hydrologic regimes, including average, dry and Critically Dry. Under average conditions the lowest flow the lower basin received is 60.8% of the total flow under the Enhanced Coordination Alternative and the highest the Lower Basin received under average condition is 64.6% of the total flow under the Supply-Driven Alternative, while the Upper Basin lowest allocation under average flow condition is 35.4% under the Supply-Driven Alternative while the highest allocation of the Upper Basin under the average flow hydrology is 39.2% of the total flow under the Enhanced Coordination Alternative.

Considering Dry Hydrology, the lowest the Lower Basin received is 61.9% of the total flow under the Enhanced Coordination Alternative while the highest the Lower Basin share is 66.7% of the total flow under both the Basin Coordination and the Supply Driven alternatives. Also, under the Dry Hydrology Alternative, the Upper Basin's lowest share is 33.3% of the total flow in both Basic Coordination and Supply-Driven alternatives, while the highest share for the Upper Basin is 38.1% under the Enhanced Coordination Alternative.

Lastly if one considers the Critically Dry Hydrology regime, the Lower Basin's lowest allocation is 63.7% of the total flow under the Maximum Operational Flexibility Alternative and the highest share of the Lower Basin is 69.5% of the total flow under Supply-Driven Hydrology. Again, considering the Critically Dry Hydrologic Regime, the lowest allocation for the Upper Basin is 30.5% of the total flow under Supply-Driven Alternative, while the greatest share of the Upper Basin is 36.3% of the total flow under the Maximum Operational Flexibility Alternative.

All in all, if one was to compare the differences in percentage considering all the hydrologic regimes including average, dry and critically dry, at a minimum the Lower Basin allocation is higher than the Upper Basin allocation by 21.6% with the Enhanced Coordination Alternative, and the maximum allocation to the Lower Basin is higher than the Upper Basin's by 39.0%. In short, considering all hydrologic regimes and all alternatives, the Lower Basin share is closer to two-thirds of the total flow, while the Upper Basin's allocation is a bit higher than one-third of the total flow.

In the 1922 Compact, the Upper Basin and Lower Basin allocations were apportioned evenly at 7.5 MAF per year. Based on the five alternatives considered in the DEIS, none of the

five alternatives is close to evenly apportioning the flows between the Upper and Lower Basins. It is clear that the Ute Indian Tribe's water right is derived from the state's share of water supply where our Ute Indian Tribes' Reservation is located. The Ute Indian Tribe's water right was quantified with the understanding that the Ute Indian Tribe's water right is guaranteed because the Ute Indian Tribe has a senior 1861 priority date. This is not the condition under which the Ute Indian Tribe's water right was quantified.

An Indian reserved water right is always available; that is, an Indian reserved water right is never lost for any reason. Based on our above analysis, we conclude that the Upper Basin states' apportionment is unduly reduced. The State of Utah's share is 23% of the total Upper Basin apportionment under the 1948 Compact. Given that the Upper Basin water supply under our analysis of the DEIS will be closer to one-third of the total water supply, Utah's share will be reduced proportionately, especially under Dry and Critically Dry hydrologic regimes. As pointed out earlier, when the Ute Indian Tribe quantified its reserved Indian water rights, it is to be protected and kept at that quantification in perpetuity.

From our Tribe's point of view, the best alternative out of the five included in the DEIS is the Enhanced Coordination Alternative, primarily because this alternative for the most part protects the elevation of Lake Powell so that it does not dip below 3,500 ft elevation. More importantly, it provides a relatively higher share of water supply to the Upper Basin and thus to the Ute Indian Tribe.

At one time during the ongoing negotiation between the Upper Basin and Lower Basin states, it was understood that the Upper Basin negotiators had a plan to cut up to 500,000 acre-feet cumulatively for five years, which amounts on average 100,000 acre-feet per year. Why would the Upper Basin negotiators promise to cut up to 500,000-acre feet in 5 years if all the five alternative analysis result in the share of water of the Upper Basin closer to about a third of the total water supply while the share of the Lower Basin is close to two thirds of the total water supply?

Based on the above analysis how do Reclamation and the Department of Interior plan to resolve the Ute Indian Tribe's water rights dilemma?

The other unacceptable information we have learned from Table 1 and the follow up five figures is that, based on our above analysis, as the hydrologic regime gets drier and drier, i.e., from average to dry and from dry to critically dry, the Upper Basin's allocation in percentage becomes lower and lower, while the percentage share of the Lower Basin goes higher and higher. In short, the alternatives are designed to benefit Lower Basin share of the water supply at the expense of the Upper Basin. The Ute Indian Tribe deeply disagrees with the unjust allocation of the available water supply between the Upper Basin and Lower Basin.

The five sets of figures representing the five alternatives, attached here, make it clear that as the flow declines the percentage share of the Lower Basin increases while that of the Upper Basin decreases.

CONCLUSION

We urge the Department to ensure that the DEIS process considers and includes a substantial analysis of all impacts on Indian Trust Assets as required under NEPA. Further, the Bureau of Reclamation must revisit the purpose and need elements as they relate to tribal water access and tribal water rights and must evaluate the proposed alternatives consistent with the purpose and need for federal action. This includes accurate modeling of the direct, indirect, and cumulative impacts that the operations and management of the Colorado River would have on the Ute Indian Tribe's Indian reserved water rights. The Department must also fulfill its promises to the Ute Indian Tribe in securing storage for its Indian reserved water rights. The Department must also clarify the characteristics of any savings pool at Lake Powell and ensure that Tribal water contributed to the pool retain their Indian water status. Lastly, the United States, as trustee of the Ute Indian Tribe's Indian reserved water rights, must ensure that the Ute Indian Tribe's water is protected from any cuts or curtailments stemming from the 1922 Colorado River Compact and Post-2026 Colorado River operations. The Ute Indian Tribe's Indian reserved water is a presently perfected right that has existed prior to, and outside of, any of the operative Colorado River agreements, including the 1922 Colorado River Compact, the Boulder Canyon Project Act of 1928, the 2007 Colorado River Basin Interim Guidelines, and the 2024 Supplement to the 2007 Colorado River Interim Guidelines.

As the Ute Indian Tribe said in its comments on the Scoping Supplemental Environmental Impact Statement in 2022, it is time for the Ute Indian Tribe to be involved as an equal sovereign as part of the ongoing negotiations and implementation of a preferred alternative for the management of the Colorado River.

DEIS Colorado River Basin Figures

Figure ES-1
Lower Basin Shortage Guidelines

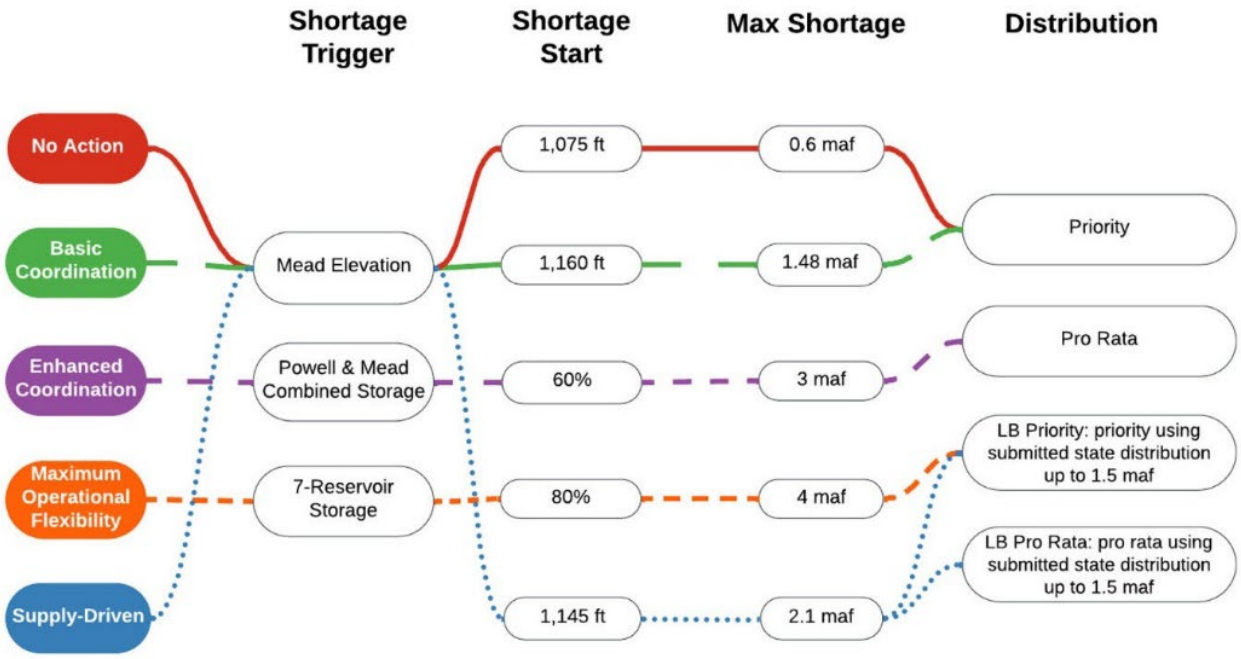


Figure ES-2
Coordinated Reservoir Operations

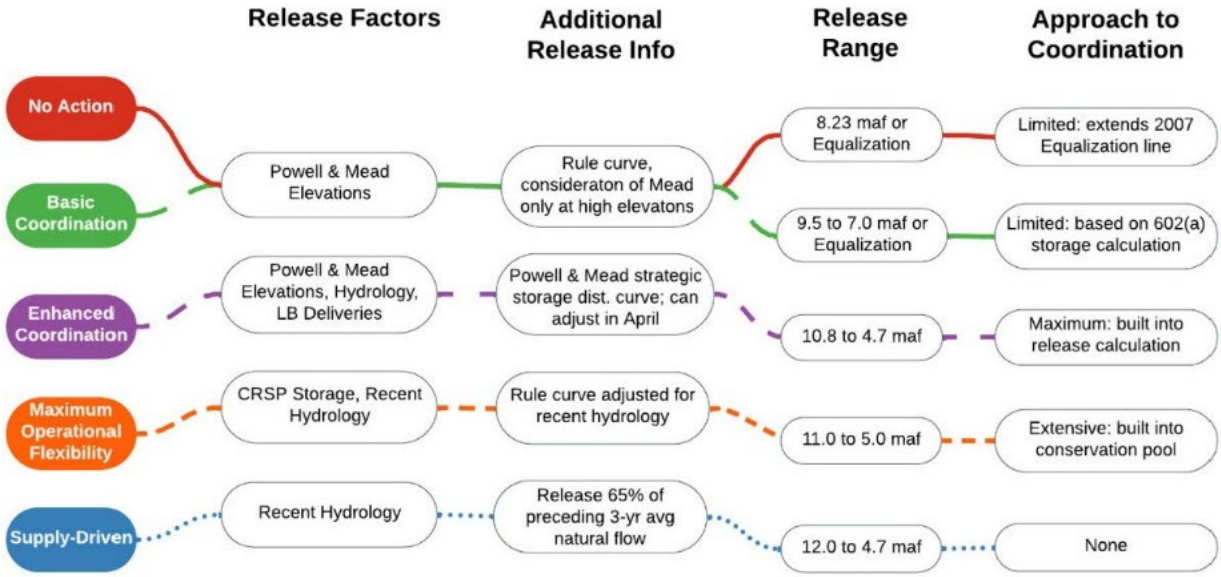


Figure ES-5
Key Performance Tradeoffs in Different Hydrologic Conditions

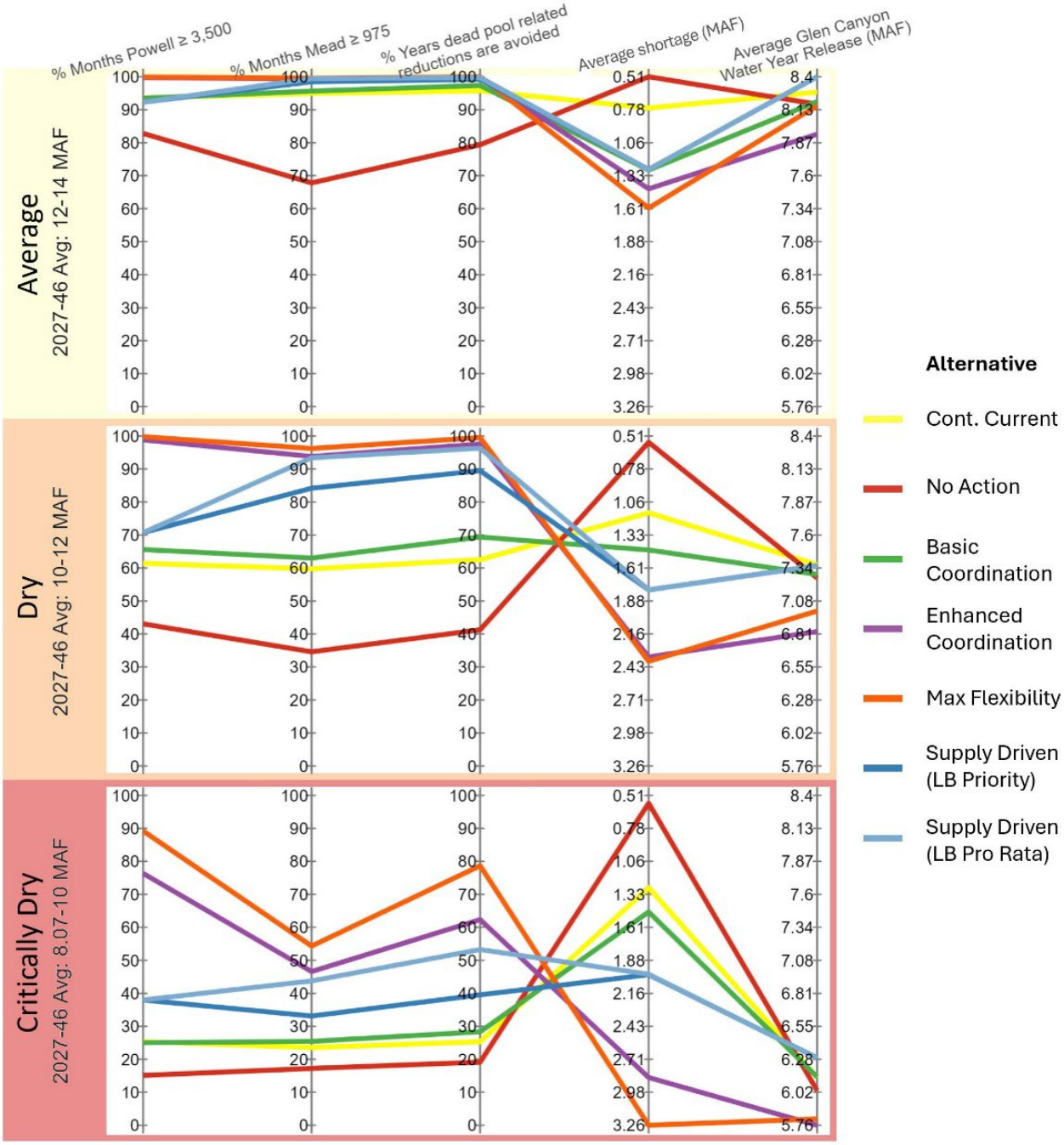


Table ES-4
Vulnerability to Lake Powell Falling Below Elevation 3,500 Feet at Least Once in the First 20 Years and Comparison to Historical Conditions

Alternative	Water Year 2027-2046 Average Natural Flow that Could Cause Vulnerability (maf/yr)	Number of Years Below Threshold 2000-2024 *(Historical Data)*	Number of Years Below Threshold 1906-2024 *(Historical Data)*
Cont. Current	≤13.1	8	12
No Action	≤18.6	25	100
Basic Coordination	≤13.1	8	12
Enhanced Coordination	≤9.7	0	0
Max Flexibility	≤9.0	0	0
Supply Driven (LB Priority)	≤13.9	18	40
Supply Driven (LB Pro Rata)	≤13.9	18	40

Table ES-5
Vulnerability to Lake Mead Falling Below Elevation 975 Feet at Least Once in the First 20 Years and Comparison to Historical Conditions

Alternative	Water Year 2027-2046 Average Natural Flow that Could Cause Vulnerability (maf/yr)	Number of Years Below Threshold 2000-2024 *(Historical Data)*	Number of Years Below Threshold 1906-2024 *(Historical Data)*
Cont. Current	≤12.5	1	1
No Action	≤15.8	24	81
Basic Coordination	≤12.0	0	0
Enhanced Coordination	≤10.9	0	0
Max Flexibility	≤10.2	0	0
Supply Driven (LB Priority)	≤11.3	0	0
Supply Driven (LB Pro Rata)	≤10.5	0	0

Table ES-6
Vulnerability to Lake Powell Falling Below Elevation 3,500 Feet at Least Once in the First Five Years and Comparison to Historical Conditions

Alternative	Water Year 2027-2031 Average Natural Flow that Could Cause Vulnerability (maf/yr)	Number of Years Below Threshold 2000-2024 *(Historical Data)*	Number of Years Below Threshold 1906-2024 *(Historical Data)*
Cont. Current	≤10.9	4	5
No Action	≤12.9	13	29
Basic Coordination	≤11.3	6	7
Enhanced Coordination	≤8.6	0	0
Max Flexibility	≤8.2	0	0
Supply Driven (LB Priority)	≤11.3	6	7
Supply Driven (LB Pro Rata)	≤11.3	6	7

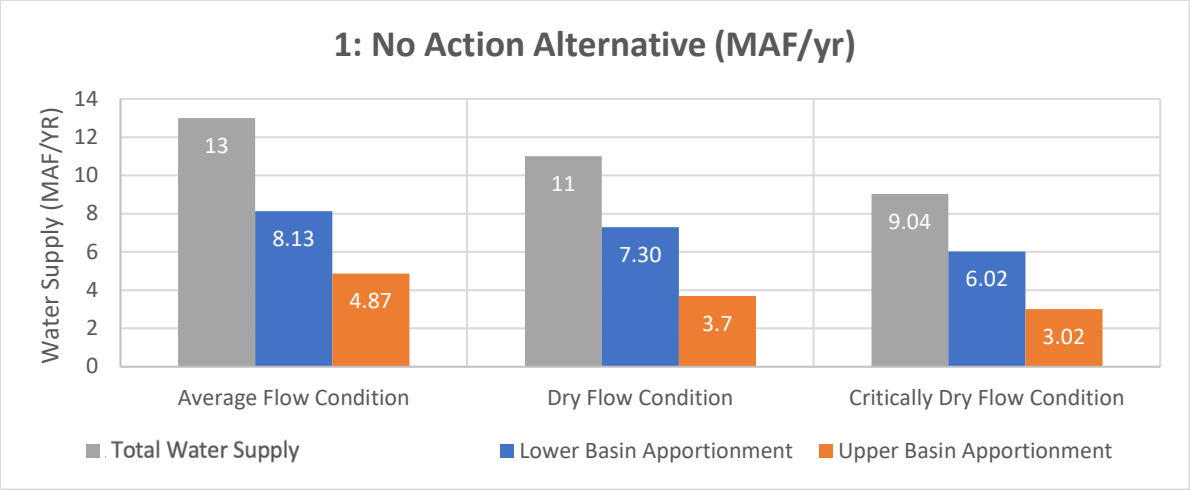
Table ES-7
Vulnerability to Lake Mead Falling Below Elevation 975 Feet at Least Once in the First Five Years and Comparison to Historical Conditions

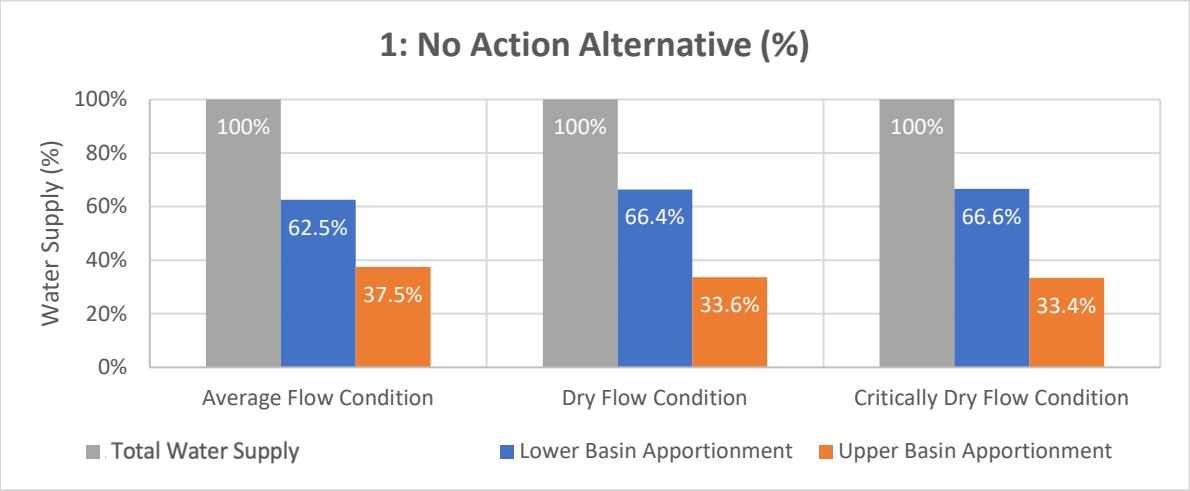
Alternative	Water Year 2027-2031 Average Natural Flow that Could Cause Vulnerability (maf/yr)	Number of Years Below Threshold 2000-2024 *(Historical Data)*	Number of Years Below Threshold 1906-2024 *(Historical Data)*
Cont. Current Strategies	≤10.9	3	5
No Action	≤12.5	11	25
Basic Coordination	≤10.2	1	1
Enhanced Coordination	≤9.2	0	0
Max Flexibility	≤9.1	0	0
Supply Driven (LB Priority)	≤10.0	1	1
Supply Driven (LB Pro Rata)	≤8.7	0	0

Table 1. Important performance tradeoffs under different hydrologic regimes of each of the five alternatives

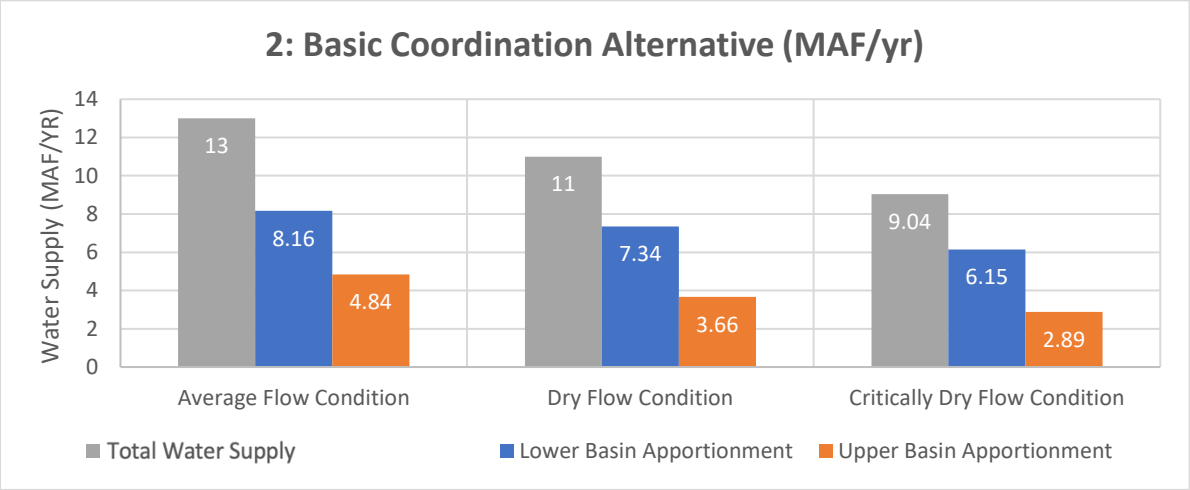
Hydrologic Regimes from 2027 to 2046	Flow	% Months Powell ≥ 3,500 feet	Average Shortage: Lower Basin	Average Release from Glen Canyon		Range of Available Flows: Upper Basin	Average Flows of the Upper Basin	
	MAF	%	MAF	MAF	%	MAF	MAF	%
1: No-Action Alternative								
Average	12 -14	84%	0.51	8.13	62.5%	4.1 – 6.1	4.87	37.5%
Dry	10 -12	43%	0.53	7.30	66.4%	3.19 – 5.19	3.70	33.6%
Critically Dry	8.07 -10	14%	0.53	6.02	66.6%	2.31 – 4.24	3.02	33.4%
2: Basic Coordination Alternative								
Average	12 -14	93%	1.2	8.16	62.8%	3.84 - 5.84	4.84	37.2%
Dry	10 -12	65%	1.44	7.34	66.7%	2.66 – 4.66	3.66	33.3%
Critically Dry	8.07 -10	25%	1.49	6.15	68.1%	1.92 – 3.85	2.89	31.9%
3: Enhanced Coordination Alternative								
Average	12 -14	100%	1.47	7.9	60.8%	4.1 – 6.1	5.1	39.2%
Dry	10 -12	100%	2.38	6.81	61.9%	3.19 – 5.19	4.19	38.1%
Critically Dry	8.07 -10	77%	2.85	5.76	63.8%	2.31 – 4.24	3.28	36.2%
4: Maximum Operational Flexibility Alternative								
Average	12 -14	100%	1.61	8.13	62.5%	3.87 - 5.87	4.87	37.5%
Dry	10 -12	100%	2.43	7.00	63.6%	2.66 – 4.66	4.00	36.4%
Critically Dry	8.07 -10	90%	3.26	5.76	63.7%	2.31 – 4.24	3.28	36.3%
5: Supply-Driven Alternative								
Average	12 -14	93%	1.2	8.4	64.6%	3.6 – 5.6	4.6	35.4%
Dry	10 -12	70%	1.79	7.34	66.7%	2.66 – 4.66	3.66	33.3%
Critically Dry	8.07 -10	39%	2.06	6.28	69.5%	1.79 – 3.72	2.76	30.5%

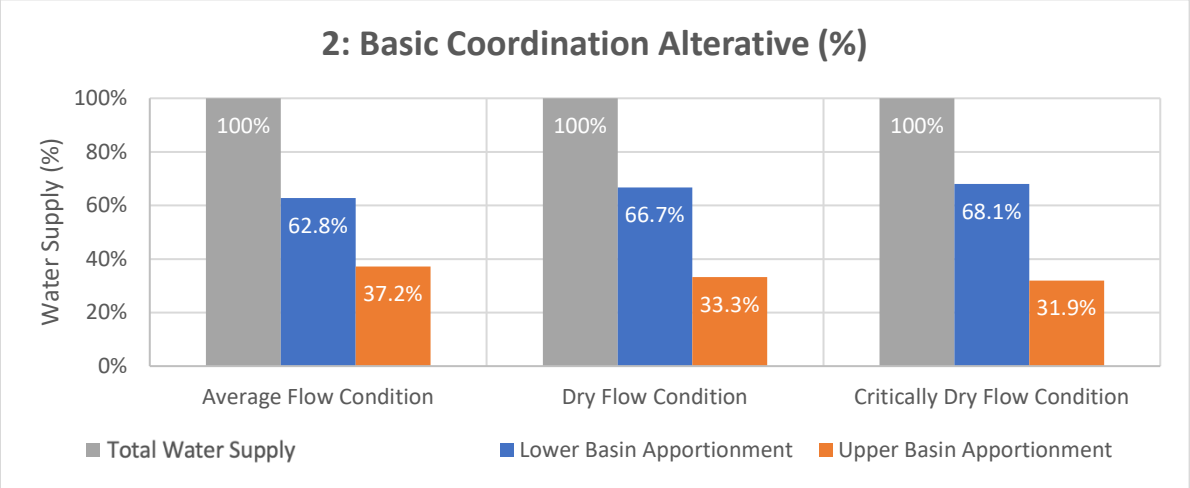
1: No Action Alternative


1: No Action Alternative (MAF/yr)
Water Supply (MAF/YR)
14
12
10
8
6
4
2
0
13
8.13
4.87
11
7.30
3.7
9.04
6.02
3.02
Average Flow Condition
Dry Flow Condition
Critically Dry Flow Condition
Total Water Supply
Lower Basin Apportionment
Upper Basin Apportionment

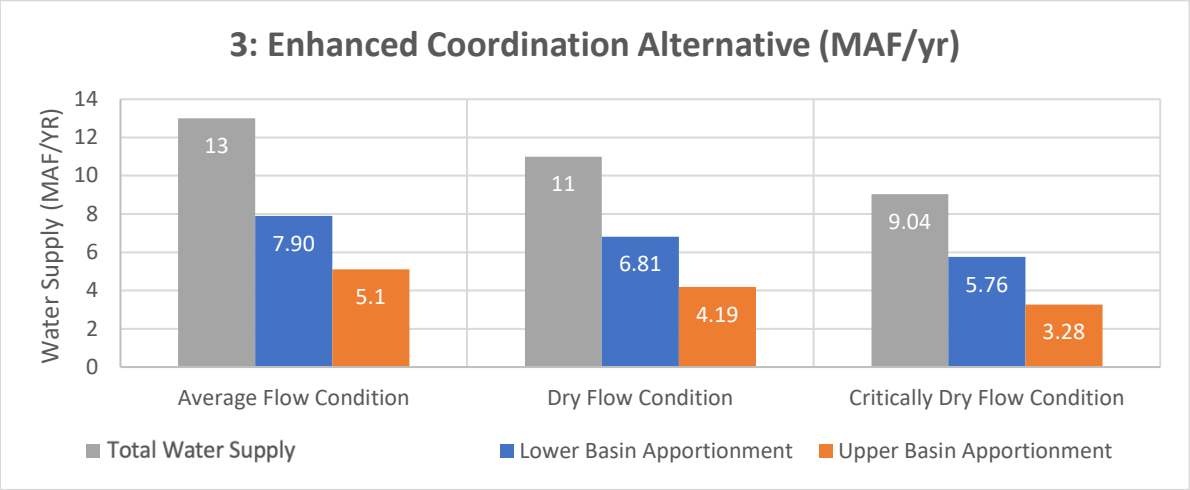

1: No Action Alternative (%)
Water Supply (%)
100%
80%
60%
40%
20%
0%
100%
62.5%
37.5%
100%
66.4%
33.6%
100%
66.6%
33.4%
Average Flow Condition
Dry Flow Condition
Critically Dry Flow Condition
Total Water Supply
Lower Basin Apportionment
Upper Basin Apportionment

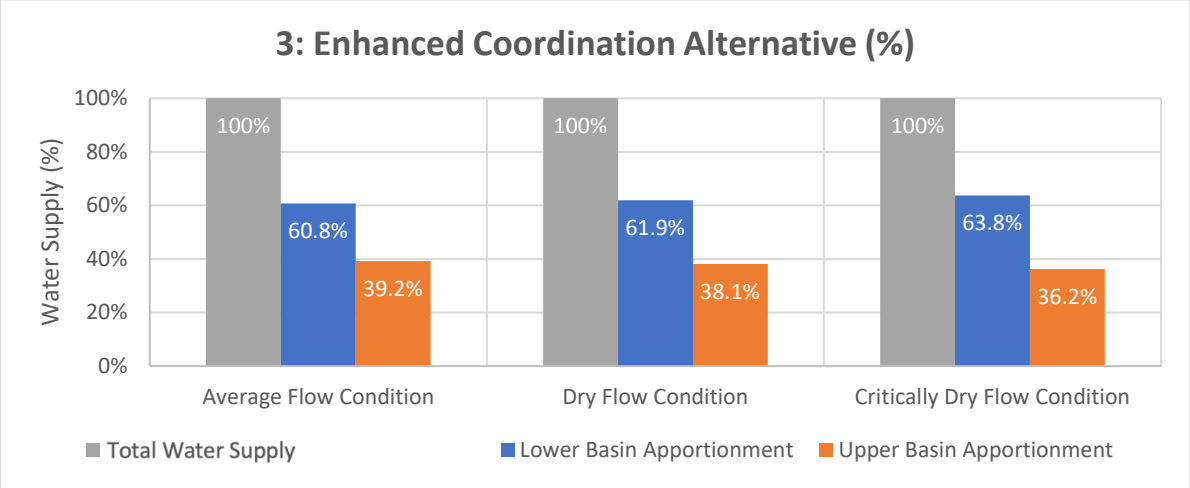
2: Basic Coordination Alternative



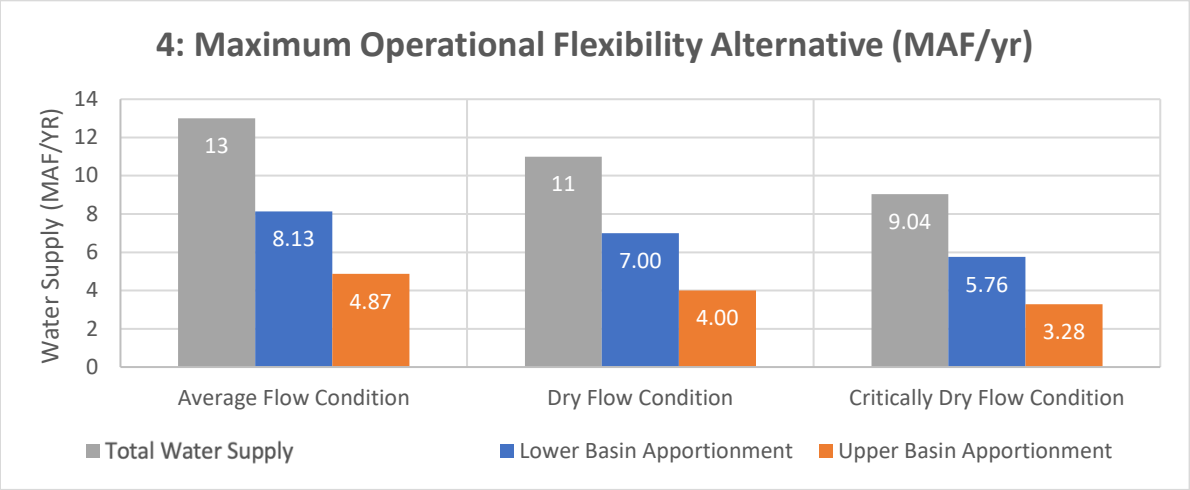


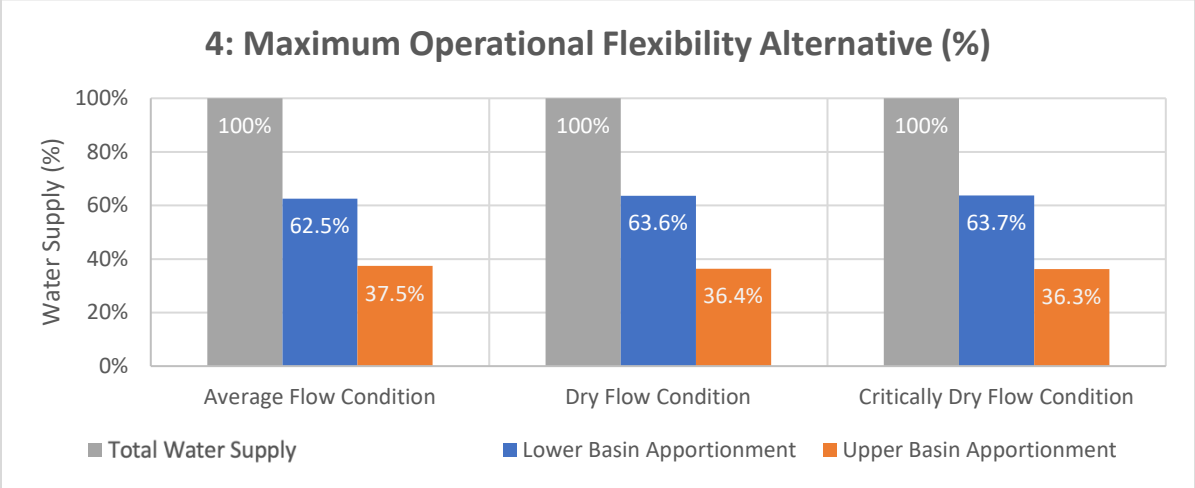
3: Enhanced Coordination Alternative





4: Maximum Operational Flexibility Alternative





5: Supply Driven Alternative