COLORADO
Upper Colorado River Commissioner
Department of Natural Resources

March 2, 2026

Bureau of Reclamation
Attn: BCOO-1000
P.O. Box 61470
Boulder City, NV 89006

VIA ELECTRONIC MAIL
crbpost2026@usbr.gov

RE: The State of Colorado's Comments on the Draft Environmental Impact Statement for Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead, 91 Fed. Reg. 2131 (Jan. 16, 2026)

Dear Acting Commissioner Cameron:

The State of Colorado, acting through the Governor's Representative and the Colorado Water Conservation Board (collectively "Colorado"), submits the following comments in response to the Bureau of Reclamation's ("Reclamation") *Draft Environmental Impact Statement for Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead* ("DEIS"), 91 Fed. Reg. 2131 (Jan. 16, 2026).

In addition to joining the Comment Letter submitted by the Upper Division States of Colorado, New Mexico, Utah, and Wyoming through the Upper Colorado River Commission ("UCRC"), Colorado submits the following comments and requests that they be incorporated into the preparation of the Final Environmental Impact Statement ("FEIS").

Colorado appreciates the opportunity to engage in this process and looks forward to continued coordination with Reclamation and the Secretary of the Interior ("Secretary") in advance of the FEIS being published. Colorado also remains committed to engage with the other Basin States, Colorado River Basin Tribes, water users, and stakeholders.

The Colorado River is nearing a crisis due to the failure of the 2007 Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead ("2007 Interim Guidelines") and in the face of more frequent drought.[1] Under the 2007 Interim Guidelines, the Secretary released water to the Lower Basin based on demand, largely ignoring worsening hydrology and dropping reservoir levels. During the term of those 2007 Interim Guidelines, Lake Powell experienced the lowest inflows in the historical record. Despite ongoing drought conditions, the Secretary did not reduce deliveries from Lake Mead until 2022. During the term of the 2007 Interim Guidelines, natural flows averaged 13.0 million-acre feet ("maf") and flows into Lake Powell averaged 8.8 maf. Of that, the Lower Basin average uses totaled 11.0 maf per year, not including deliveries to Mexico—roughly 2.5 maf per year more than their compact apportionment. Meanwhile, the Upper Basin average uses totaled only 4.3 maf per year—3 maf less per year than their compact apportionment.[2] The 2007 Interim Guidelines were adopted in part to coordinate operations between Lake Powell and Lake Mead in the face of ongoing drought and to develop shortage criteria for the Lower Basin. Yet the 2007 Interim Guidelines have proven insufficient to protect Lake Powell and Lake Mead from being drawn down to dangerous levels.

The DEIS recognizes the need for operating rules that can correct the deficiencies of the 2007 Interim Guidelines and sustain the Colorado River and its communities throughout a wide range of hydrologies—including the increasingly dry conditions that are the new reality.[3] However, the DEIS does not achieve this critical objective.

As set forth in Colorado's comments herein, each of the proposed alternatives in the DEIS fails for several reasons, including violation of the Law of the River,[4] requiring federal action that exceeds the Secretary's existing authorities, and failing to sustain the system.

---

[1] 73 Fed. Reg. 19873 (Apr. 11, 2008).

[2] The Upper Basin is upstream of both Lake Mead and Lake Powell. With far less reservoir capacity than the Lower Basin, the Upper Basin relies heavily on annual precipitation. Accordingly, in times of drought, the Upper Division States have required their water users to take significant cuts to their water supply. This average use includes evaporation from the Colorado River Storage Project Act Initial Units of Lake Powell, Flaming Gorge, Aspinall, and Navajo.

[3] *See generally*, DEIS Ch. 1.

[4] The "Law of the River" refers to the body of law affecting interstate and international use, management, and allocation of water in the Colorado River System, including the 1922 Colorado River Compact, the 1944 Mexican Water Treaty, the 1948 Upper Colorado River Basin Compact, United States Supreme Court decisions and the United States Supreme Court Decree in *Arizona v. California*, and numerous federal statutes and agreements.

With respect to the Law of the River, all the alternatives in the DEIS prioritize uses in the Lower Basin at the expense of the Upper Basin, thereby violating the required equitable division of the river set forth in the 1922 Colorado River Compact ("1922 Compact").[5] Similarly, the alternatives that rely on releases from smaller Upper Basin reservoirs[6] for the benefit of the Lower Basin violate the 1948 Upper Colorado River Basin Compact ("1948 Compact"),[7] which reserves to the Upper Basin states the use of those upstream reservoirs. The DEIS compounds this problem by failing to analyze the impacts of such releases in the Upper Basin. The proper geographic scope of the federal action is confined to the portions of the river over which the Secretary has existing authority—from Lake Powell to the International Border. Alternatives that go beyond existing authority and have impacts beyond the geographic scope should be excluded.

With respect to the core thread of the DEIS's stated purpose and need—sustaining the system—three of the proposed alternatives fail to produce sufficient shortages to ensure Lake Powell and Lake Mead stay above unsafe levels of operation. Tellingly, one alternative—the Supply Driven Alternative—relies on fictitious "gap" water in the modeling to make the alternative work. And three of the alternatives require additional legal authorities and/or agreements before they can be implemented; any such authorities or agreements are too remote and speculative to be considered as part of a reasonable alternative. For example, as noted above, the Secretary has no authority to rely on releases from Upper Basin reservoirs[8] absent agreements with the Upper Division States. Even if the Secretary gained the authority to use such reservoirs to benefit Lake Powell or Lake Mead, there is not enough water in these reservoirs to supply even one year of use in the Lower Basin. Accordingly, even if those alternatives were legal, they would not stabilize the system in practice.

In short, none of the proposed alternatives has the requisite combination of sufficiently robust and feasible operations consistent with current legal authority under the Law of the River. In the FEIS, the Secretary must include alternatives that reflect the reality of available supply, adequately assess and impose shortages in the Lower Basin to sustain storage and protect operations at Lake Powell and Lake Mead, and fit within the Law of the River, anchored by the 1922 Compact and the 1948 Compact. The Upper Division States' Alternative (as refined December 30, 2024) ("UDS Alternative") meets all three of those criteria and should be analyzed.

---

[5] Colorado River Compact of 1922, 70 Cong. Rec. 324 (1928) ("1922 Compact").
[6] The Colorado River Storage Project Act Upstream Initial Units of Flaming Gorge, Aspinall, and Navajo ("CRSP Upstream Initial Units").
[7] Upper Colorado River Basin Compact of 1948, Ch. 48, 63 Stat. 31 (1949) ("1948 Compact").
[8] The CRSP Upstream Initial Units of Flaming Gorge, Aspinall, and Navajo.

I. Colorado's Interests

Colorado is a headwaters state, in which seven major river basins originate and whose waters flow out of state to nineteen downstream states. Partnering with downstream neighbors is an important part of managing water in Colorado, and Colorado shares water with other states via nine interstate water compacts and two United States Supreme Court equitable apportionment decrees. Colorado is subject to four interstate water compacts in the Colorado River Basin alone. The Colorado River and its tributaries supply water to most of Colorado's six million residents and many of the State's most productive agricultural lands. Because Colorado is a headwaters state, we lack the benefit of large reservoirs above our places of use to provide a steady, reliable source of supply. Instead, Colorado must manage its water demands from the water that nature provides as snowpack, some of which is captured in seasonal and modestly sized reservoirs.[9] As a result, Colorado's water supply and use are highly variable each year.

Throughout its history, Colorado has strictly administered water rights according to the physical and legal availability of water in a particular location at a particular time. During the last twenty-five years of severe drought, this means that water users in Colorado have often not received the full amount of their decreed right that they can place to beneficial use, which has significantly impacted Colorado's farms, ranches, cities, towns, and industry. Hydrologic shortage also impacts tourism, hunting, fishing, and other sectors of the recreational economy, as well as the environment. For the last twenty-five years, Colorado water users have taken shortages and have had to cut uses accordingly nearly every year, including cuts to water rights that had not previously been curtailed in most years and are senior to the 1922 Compact. Colorado regularly experiences significant shortages averaging 600,000 acre-feet per year that are administered by the Colorado State Engineer through strict priority administration. Colorado's strict administration of water rights is mandatory and uncompensated and results in more water flowing out of state than would otherwise occur.

In addition to strictly administering water, Colorado has invested over $308 million state dollars in multi-benefit water projects across the state that build resiliency, conserve water, and promote efficiency—all of which adds water to the system that would not otherwise be there if not for Colorado's sole actions. Colorado has invested more than $22 million to restore and protect the headwater watersheds of the Colorado River, build wildfire and flood resilience, stabilize

[9] Colorado contributes 70-80% of the entire Colorado River Basin's supplies in most years.

streams, and reconnect land and water, all of which protects the system for the benefit of Colorado and the other downstream states.

As a signatory of the 1922 Compact and the 1948 Compact, Colorado has significant rights and interests in the Colorado River and fully supports the robust and sustainable management of Lake Powell and Lake Mead. Colorado supports effective solutions that will help rebuild over two decades of depleted storage in Lake Powell and Lake Mead and minimize risk for the entire Colorado River System. We believe Lake Powell and Lake Mead must be administered and managed in a manner that is supply-driven with guidelines that help develop sustainable storage supplies to satisfy the rights of all of the Colorado River Basin States without impairing Colorado's rights or compromising its ability to serve the present and future uses of its citizens. It is in the interest of protecting these rights and the interests of its citizens that Colorado submits these comments.

II. Legal Framework

For over 100 years, the Colorado River has been apportioned, allocated, and managed pursuant to a complex legal framework known as the Law of the River. Colorado is affected by, and has been closely involved in, the development of the Law of the River, including negotiating interstate compacts and helping to develop federal laws and regulations concerning the Colorado River System. The Law of the River apportions the use of the Colorado River System between the Upper Basin and Lower Basin, among the Basin States, and between the United States and Mexico. It regulates construction and operation of federal storage facilities, and it establishes the processes under which the Secretary must operate Colorado River facilities and report to Congress and the Basin States on such operations.[10] The Secretary's authority is limited in the Upper Basin. Importantly, the Law of the River serves as the foundation against which environmental review related to management of Colorado River reservoirs remains subject.

[10] 1922 Compact; 1948 Compact; Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, Mex.-U.S., Nov. 14, 1944, Treaty Series 944; Boulder Canyon Project Act of 1928, Pub. L. No. 70-642, 45 Stat. 1057 (codified as amended at 43 U.S.C. §§ 617-619b) ("1928 Act"); Colorado River Storage Project Act of 1956, Pub. L. 84-485, 70 Stat. 105 (codified as amended at 43 USC. §§ 620-620o) ("1956 Act"); *Arizona v. California*, 373 U.S. 546 (1963) ("1963 Opinion"); *Arizona v. California*, No. 8, Orig. (1964) ("1964 Decree"); *Arizona v. California*, 547 U.S. 150 (2006) ("Consolidated Decree"); Colorado River Basin Project Act of 1968, Pub. L. No. 90-537, 82 Stat. 885 (codified as amended at 43 U.S.C. §§ 1501-56) ("1968 Act").

a. Law of the River

The 1922 Compact is the predominant law governing the Colorado River System. It forms the foundation for and governs all aspects of the Law of the River. The 1922 Compact equitably divides and apportions the use of the waters of the entire Colorado River System in perpetuity for all present and future uses between the Upper Basin and the Lower Basin. The 1922 Compact provides certainty and security for all the Basin States and their citizens. In particular, it allowed the States to determine how the use of water from the river would be apportioned, it specified that the apportionments made are exclusive to each basin, and it required that the apportionments are to satisfy all uses within the respective basins. The 1922 Compact does not apportion the use of Colorado River System water among individual Basin States, though it recognizes the authority of each Basin State to regulate and control the appropriation, use, and distribution of water within its boundaries.

The 1948 Compact apportions and governs the use of the Upper Basin's compact apportionment among the Upper Division States. This apportionment is based on a percentage of water available for use in a given year.[11] The 1948 Compact also established the UCRC.[12] The UCRC is an interstate administrative agency that administers the 1948 Compact. Importantly, the UCRC does not control the in-state administration of water rights, which remains the responsibility of the individual Upper Division States in accordance with the 1922 Compact.

The 1928 Boulder Canyon Project Act ("1928 Act") and the U.S. Supreme Court decision ("1963 Opinion") and decree in *Arizona v. California* ("1964 Decree") [13] allocate and govern the use of the Lower Basin's compact apportionment among the Lower Division States. The 1928 Act authorized the Secretary to contract for water storage and deliveries to Lower Basin entities from Lake Mead, and all uses of water from Lake Mead must be made pursuant to such contract.[14] The 1928 Act further outlined allocations of water from the mainstream to the Lower Division States that were upheld by the Supreme Court Opinion and Decree. The Supreme Court Opinion and Decree are subject to and do not amend the 1922 Compact, which, as mentioned above, applies to the entire Colorado River System.[15]

Subsequent components of the Law of the River serve to implement, but not amend, the 1922 Compact and the 1948 Compact. These subsequent components

[11] 1948 Compact, art. III.
[12] *Id.*, art. VIII.
[13] Updated in *Arizona v. California*, 547 U.S. 150 (2006) ("Consolidated Decree").
[14] 1928 Act, §§ 1, 5.
[15] 1963 Opinion at 565–68; 1964 Decree, art. VIII(D); 1922 Compact, arts. II(a), III.

are subject to these Compacts. For example, the apportionments created by the 1922 Compact were predicated on storage that would require significant federal investment and cooperation. Congress therefore authorized the construction and operation of Colorado River storage facilities to help ensure that both the Upper and Lower Division States could develop their legal apportionments under the 1922 Compact. The 1928 Act authorized Hoover Dam and Lake Mead, from which the Secretary contracts water supplies to Lower Division State water users. The 1956 Colorado River Storage Project Act ("1956 Act") authorized Glen Canyon Dam and Lake Powell, and the Upper Initial Units of Flaming Gorge, Aspinall, and Navajo ("CRSP Upstream Initial Units") to provide storage to support the Upper Basin's development of its Colorado River apportionment.[16] The CRSP Upstream Initial Units can also meet 1922 Compact obligations if determined necessary by the UCRC. But preference is given to storage for Upper Basin consumptive uses.[17] Importantly, the Secretary is required to operate these Colorado River storage facilities in a manner consistent with and subject to the 1922 Compact and the 1948 Compact.[18]

The 1968 Colorado River Basin Project Act ("1968 Act") further supports the development of the apportionments made under the 1922 Compact, and builds upon, but does not amend, the 1928 Act and 1956 Act with respect to the Secretary's authority and obligations regarding the operation of Lake Powell and Lake Mead. The 1968 Act directs the Secretary to develop criteria for the coordinated long-range operation of Lake Powell and Lake Mead and sets the order of priorities for releases from Lake Powell.[19] These priorities serve to meet the authorized purposes of Lake Powell, and provide storage in Lake Powell and the CRSP Upstream Initial Units intended to allow the Upper Division States to continue to meet their obligations under the 1922 Compact without impairing their ability to consumptively use the water apportioned to them in perpetuity by the 1922 Compact and 1948 Compact.[20] In operating the reservoirs as directed by the 1968 Act, the Secretary cannot reduce or prejudice the rights of the Upper Basin to consumptive use of water apportioned under the 1922 Compact and the 1948 Compact by uses in the Lower Basin.[21] Indeed, the 1968 Act requires the Secretary to operate Lake Powell and Lake Mead in a manner consistent with and subject to the Law of the River.[22]

---

[16] 1956 Act, § 1.
[17] 1948 Compact.
[18] 1956 Act, §§ 4, 9.
[19] 1968 Act, § 602(a).
[20] *Id.* This storage is referred to as "602(a) Storage."
[21] 1968 Act, § 603(a).
[22] *Id.*, § 601.

The Secretary complied with the mandate in the 1968 Act to develop criteria for the coordinated long-range operation of Lake Powell and Lake Mead in 1970.[23] The Criteria for Coordinated Long-Range Operations ("LROC") does not create new law or modify existing law; rather, it sets forth criteria and procedural sequencing necessary to ensure operations are consistent with underlying law.

The 1968 Act also directs the Secretary to make reports on the annual consumptive uses and losses of water from the Colorado River System on a state-by-state basis every five years.[24] This accounting is distinct from accounting pursuant to the Consolidated Decree because it includes Lower Basin tributaries as well as evaporation and system losses.

b. Secretarial Authority

Within the complex legal framework described above, the Secretary has broad authority as the "water master" in the Lower Basin. For example, the Secretary delivers water from Lake Mead to water users in the Lower Division States under the authorities of federal statutes and the U.S. Supreme Court's 1964 Decree.[25] The Secretary serves as water master and plays a unique role in the management of the lower Colorado River.[26] The Secretary has broad authority in the Lower Basin to manage water supplies and determine how much and under what circumstances deliveries of water are made from Lake Mead, subject to the 1922 Compact. Included in this broad authority is the ability to determine surplus, normal, and shortage conditions and implement meaningful and significant shortages in the Lower Basin when the Secretary determines water is not available. Such a determination is based on the process and criteria identified in the 1968 Act and the 1964 Decree.[27]

The Secretary's authority in the Upper Basin is far more limited. With respect to federal storage facilities, Reclamation is required to operate Lake Powell and the CRSP Upstream Initial Units in compliance with the 1922 Compact and the 1948 Compact.[28] The primary purpose of these reservoirs is to store water for beneficial consumptive use of the Upper Basin's compact apportionment by the

---

[23] Criteria for Coordinated Long-Range Operation of the Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act of September 30, 1968, Pub. L. No. 90-537 (1970) (as amended by 70 Fed. Reg. 15873 (Mar. 29, 2005)) ("LROC").
[24] 1968 Act, § 601(b).
[25] 1928 Act, §§ 4(a), 5; 1964 Decree, art. II.
[26] 1963 Opinion at 589 – 90.
[27] *See* 1968 Act, § 601(b)(2), § 602(a); 1964 Decree, art. II.
[28] 1956 Act, § 14.

Upper Division States.[29] The 1948 Compact provides for the designation by the UCRC of some Upper Basin reservoirs to be for both the storage of water for beneficial consumptive use in the Upper Basin and to help meet the Upper Division States' obligations if determined to be necessary.[30] The designation of such reservoirs and the release of water to meet obligations under the 1922 Compact are within the authority of the UCRC.[31]

III. Relationship to Existing Law

Any Post-2026 Operational Guidelines are subject to the Law of the River. Therefore, the proposed action and range of alternatives outlined in the DEIS must describe operations that can fit within that overarching legal framework. Alternatives that conflict with the 1922 Compact or the 1948 Compact, expand federal authorities, or require contentious modifications to laws and contracts, or otherwise impair legally protected rights and interests of Colorado, are not implementable.

For example, the DEIS exceeds existing authorities if it contemplates operations that undermine the 1922 Compact's apportionment between the Upper Basin and Lower Basin for exclusive beneficial uses in each basin, or circumvents the authority of the 1922 Compact with respect to obligations to Mexico, or modifies obligations thereunder. Further, the DEIS cannot recommend, determine, or define the Upper Division States' compact rights or obligations. Any determination or finding relating to Upper Basin compliance with the 1922 Compact is the sole authority of the UCRC pursuant to the 1948 Compact.

a. Proposed Federal Action

The National Environmental Policy Act ("NEPA")[32] requires all federal agencies to conduct an environmental review of major federal actions.[33] Excluded from the scope of a major federal action are activities and decisions that are nondiscretionary and made in accordance with the agency's statutory authority.[34] The proposed federal action must therefore recognize the areas where the agency has no discretion and exclude those elements from the NEPA analysis. Moreover,

---

[29] *Id.*, § 1; *see also* 1968 Act, § 602(a)(3); LROC, art. II(1)(f).
[30] 1948 Compact, art. V.
[31] *Id.*, arts. IV, V, VIII.
[32] National Environmental Policy Act of 1969, Pub. L. No. 91-190, 83 Stat. 852 (1970) (codified as amended at 42 U.S.C. §§ 4321 *et seq.*).
[33] *Id.*, §§ 102, 111.
[34] *Id.,* §§ 105, 106, 111.

NEPA does not affect "specific statutory obligations of any Federal agency…to comply with criteria or standards of environmental quality…."[35]

Here, the DEIS identifies the proposed federal action as "adopt[ing] specific guidelines and coordinated reservoir management strategies to address operations of Lake Powell and Lake Mead through their full operating ranges."[36] The operational elements considered in the proposed action are: water availability in the Lower Basin; coordinated reservoir operations of Lake Powell and Lake Mead; and storage and delivery of conserved water in Lake Mead and Lake Powell.[37] Reclamation intends to use the Post-2026 Operational Guidelines to implement the LROC.[38]

Given this proposed federal action, Reclamation must ensure the alternatives analyzed adhere to the nondiscretionary mandates imposed by the Law of the River. Federal statutes impose specific nondiscretionary mandates on the Secretary in the operation of Lake Powell and Lake Mead. These mandates are inherent operational elements of any proposed action, and are therefore not subject to modification in this NEPA analysis. For example, LROC prescribes a process based on nondiscretionary mandates expressed in the 1968 Act. These mandates must be interpreted consistent with the 1922 and 1948 Compacts. While LROC does not impose its own substantive law, it prescribes objective criteria and processes intended to fulfill the statutory mandates that aid in the exercise of the rights obtained in the Compacts. Reclamation cannot disregard these mandates in the alternatives analysis. Moreover, the operational elements that Reclamation describes in the DEIS implicate these mandates related to storage in Lake Powell and accurate assessment of water uses and losses in the Lower Colorado River System, as discussed below.

b. Storage in Lake Powell

Pursuant to the 1968 Act and LROC, one of Reclamation's essential annual obligations is determining the quantity of water necessary to be in storage in the Upper Basin reservoirs pursuant to Section 602(a)(3). The determination of the Section 602(a) storage quantity is a necessary prerequisite to determining the appropriate release from Lake Powell.[39] Section 602(a)(3) allows the Upper Division States to continue to meet their obligations under the 1922 Compact without impairing their ability to consumptively use the waters of the Colorado River

[35] *Id.*, § 104.
[36] DEIS at 1-4.
[37] *Id.* at 1-5.
[38] *Id.* at 1-5.
[39] LROC, art. II(1).

System apportioned to them in perpetuity by the Compact.[40] Section 602(a)(3) effectively serves as a proactive storage mechanism for the Upper Division States and serves as the mechanism in which to proactively store water in Lake Powell. Therefore, 602(a) Storage is of profound importance to both the Upper and the Lower Basins, and it is a nondiscretionary mandate Reclamation cannot disregard or misapply in this EIS without exceeding its legal authority.

c. Lower Basin Tributary Use

Another key operational component of the proposed federal action is water availability in the Lower Basin. It is critical that Reclamation use the best available data for consumptive uses and losses in the Colorado River System to adequately and appropriately conduct the NEPA analysis for the proposed federal action while complying with statutory mandates.[41]

On December 19, 2025, Reclamation released Consumptive Uses and Losses ("CU&L") data for the Lower Colorado River System covering the period 2006–2024. While this is not an official CU&L report as is required pursuant to the 1968 Act, Colorado appreciates the publication of the data to better inform decision-making in the Colorado River Basin, particularly decision-making for new operations of Lake Powell and Lake Mead. That said, Colorado was surprised to see the updated data was not incorporated into the DEIS. Indeed, the discussion of historic basin-wide uses notably excludes full system uses and losses that are covered by the updated CU&L data.[42]

NEPA requires federal agencies to make available useful information regarding the quality of the environment to better assess the impacts of the proposed action.[43] Federal agencies are required to ensure the professional and scientific integrity of the process and make use of reliable data and resources in the analysis.[44] It is a fatal flaw to not include the updated CU&L data in this DEIS. At a minimum, Reclamation should disclose and analyze this new data and information in the FEIS.[45]

---

[40] 1968 Act, § 602(a)(3); LROC, art. II(1)(f).
[41] NEPA, § 102; *see also* DEIS at ES-19 (citing Restoring Gold Standard Science, Exec. Order No. 14303, 90 Fed. Reg. 22601 (May 23, 2025)).
[42] DEIS at 1-19 fig.1-3.
[43] NEPA, § 102.
[44] *Id.*, § 102.
[45] *Id.*, § 108 (requiring agency to reevaluate programmatic analysis when there are new circumstances or information that bears on the analysis).

Moreover, the updated CU&L data does not support Reclamation's statements throughout the DEIS that drought-response activities and conservation efforts in the Lower Basin "have resulted in continued reductions in use."[46] Reclamation should clarify that such statements relate to mainstream uses only and also exclude evaporation and transit losses.

Review of the data Reclamation recently released for the 2006–2024 period shows an average consumptive use by the Lower Division States is 11.0 maf per year. Colorado's estimate of Lower Division States' consumptive use during this period are set forth below.

Year	Arizona Consumptive Use[1]	California Consumptive Use	Nevada Consumptive Use	Mainstream Evaporation	Estimated Transit Losses[2]	Total
2006	5,024,759	4,293,712	463,341	914,010	545,913	**11,241,735**
2007	5,041,914	4,370,753	470,176	868,330	545,913	**11,297,086**
2008	5,206,385	4,498,865	450,433	847,729	545,913	**11,549,325**
2009	5,085,792	4,358,122	439,087	842,667	545,913	**11,271,581**
2010	5,075,986	4,356,887	412,359	753,843	545,913	**11,144,988**
2011	5,076,797	4,312,708	412,881	859,313	545,913	**11,207,612**
2012	5,033,394	4,416,718	436,197	867,252	545,913	**11,299,474**
2013	5,011,649	4,475,835	415,450	844,832	545,913	**11,293,679**
2014	5,207,313	4,649,780	426,439	803,918	545,913	**11,633,363**
2015	5,306,216	4,620,801	422,386	784,428	545,913	**11,679,744**
2016	4,996,307	4,381,139	395,990	769,566	545,913	**11,088,915**
2017	5,048,764	4,026,554	399,150	803,151	545,913	**10,823,532**
2018	5,017,835	4,265,565	400,399	795,297	545,913	**11,025,009**
2019	4,865,934	3,840,726	378,222	756,050	545,913	**10,386,845**
2020	5,163,531	4,059,950	417,713	824,239	545,913	**11,011,346**
2021	5,148,069	4,404,767	404,150	786,692	545,913	**11,289,591**
2022	4,683,232	4,424,287	382,322	736,341	545,913	**10,772,095**
2023	4,657,136*	3,699,195	347,625	730,229	545,913	**9,980,098**
2024	4,575,402*	3,943,779	380,978	776,597	545,913	**10,222,669**
Total	**95,226,415***	**81,400,143**	**7,855,298**	**15,364,484**	**10,372,347**	**210,218,687**
Average	**5,011,917***	**4,284,218**	**413,437**	**808,657**	**545,913**	**11,064,141**

[1] Total of Mainstream, Tributary, and CAP Underground Storage Facility Net Delivery.

[2] Estimated Transit Losses from Lower Colorado River Mainstream Evaporation and Riparian Evapotranspiration Losses Report, Bureau of Reclamation (December 2023).

* No data available for CAP Underground Storage Facility Net Delivery in 2023 and 2024.

The exclusion of this critical data raises questions about the adequacy of the alternatives and impacts analyses in the DEIS, because Reclamation's own data show a much greater consumptive use by the Lower Division States than the DEIS

[46] DEIS at 1-19 to 1-20.

assumes. This in turn raises questions about assumptions underpinning Reclamation's operations that bear on the analysis.

d. Lower Basin Groundwater Use

Underground water storage in Arizona is another critical component of available water supply in the Lower Basin that is disregarded in the DEIS. The most recent Arizona Department of Water Resources data available through 2022 indicates that Arizona's five original aquifer management areas hold a net total balance of 12.24 maf of Colorado River water available for recovery in the subsurface.[47]

Furthermore, the updated CU&L data Reclamation released does not account for the water delivered by the Central Arizona Project ("CAP") to underground storage that is not consumed in the current year. Colorado estimates that CAP has directly delivered approximately 3.3 maf between 2006 – 2022 to underground recharge that does not appear in Reclamation's accounting. This obscures the timing and potential magnitude of depletions to the Colorado River System by deferring accounting for consumptive use until stored groundwater is withdrawn. Such withdrawals could occur decades later, if at all. Colorado reiterates the UCRC's request that Reclamation correct this flaw in the CU&L methodology.[48]

Moreover, this water was withdrawn from the Colorado River mainstream, is a part of the Colorado River System, is stored in the Lower Basin, and is intended to supply Lower Basin users. In fact, it appears Arizona's underground storage of Colorado River water as of 2022 holds more than one-and-a-half times the current contents in Lake Mead as of 2026.[49] Any FEIS that fails to consider stored Colorado River water in the Lower Basin aquifer system creates a significant discrepancy in Reclamation's analysis.

IV. Scope

Reclamation's outlined scope of the proposed federal action in this DEIS has geographic, temporal, and substantive components.

---

[47] Ariz. Dep't of Water Resources, Underground Water Storage, Savings and Replenishment, https://www.azwater.gov/recharge/accounting (last visited Jan. 26, 2026).
[48] Letter from UCRC to Genevieve Johnson, Acting Reg'l Manager, Interior Region 8: Lower Colo. River, Bureau of Reclamation (Nov. 7, 2025).
[49] As of January 1, 2026, Lake Mead elevation was 1,055' MSL, which equates to about 8.05 maf. In 2022, the underground storage in Arizona from the Colorado River was 12.24 maf.

a. Geographic Scope

Colorado agrees with Reclamation that the geographic scope of the proposed federal action should be limited to Lake Powell down to the Southerly International Boundary with Mexico. If the proposed action were confined to this geographic area, it would be within the Secretary's authority. However, Reclamation goes beyond this geographic scope by considering potential actions in both the Upper Basin and Mexico.[50] This exceeds the Secretary's authority. The DEIS's analysis of the Enhanced Coordination, Maximum Operational Flexibility, and Supply Driven Alternatives are flawed as a result.[51]

Including actions above Lake Powell or actions by Mexico in the DEIS is beyond the Secretary's authority. In addition, the impacts to the Upper Basin from those actions are not analyzed in the DEIS. Reclamation has no authority to modify operations at the CRSP Upstream Initial Units constructed under the 1956 Act, including the respective Records of Decision that govern each of those reservoirs, in this proposed federal action. Moreover, it is beyond the scope of the DEIS to rely on actions by Mexico that assume contested interpretations of the 1922 Compact. Accordingly, Reclamation must limit the alternatives, underlying assumptions for those alternatives, and the impacts analysis to the geographic boundary described in the DEIS.

b. Temporal Scope

Colorado appreciates that Reclamation is considering a twenty-year term for the Post-2026 Operational Guidelines. However, Reclamation states that it remains open to a shorter duration.[52] Such temporal variability has significant implications for the DEIS. Alternatives applied over the course of a five-year period will have different outcomes than the same alternatives over the course of a twenty-year period. An alternative may meet the purpose and need over a twenty-year period, but fail to meet the purpose and need over a five-year period. If Reclamation elects to consider a shorter duration, the analysis must evaluate the impact of alternatives for both long- and short-term periods.

In addition, Colorado requests clarification that the Post-2026 Operational Guidelines will be used for development of the 2027 Annual Operating Plan and will

[50] *See, e.g.*, DEIS at E-1, E-6 – E-7, E-11 – E-14, E-17 – E-18, E-32, A-7 – A-13; A-34, A-36 – A-37, A-39 – A-41; A-45 – A-48, A-51 – A-54, A-60.
[51] *See, e.g.*, *id.* at A-27 – A-28, A-30 – A-31, A-34, A-36 – A-37, A-39 – A-42, A-44, A-46 – A-54, A-60, B-21 – B-22, B-34 – B-36 , B-41 – B-42; Appendix I; Appendix K.
[52] *Id.* at ES-3, 1-2, 1-5.

be effective October 1, 2026. Reclamation should modify any language in the DEIS to the contrary.[53]

c. Substantive Scope

Colorado appreciates that Reclamation recognizes the proposed federal action is limited by the legal framework of the Law of the River and the scope of the Secretary's authorities pursuant to federal law. However, the DEIS confuses that scope in several statements throughout, such as: "The goal…was to develop a reasonable and broad range of alternatives for managing the Colorado River system and its resources post-2026,"[54] and "[t]he Secretary has the vested authority and responsibility to operate the [Colorado River] System through coordinated operations…."[55] The DEIS's implication that the Secretary has equal authority over the entire Colorado River System is incorrect. The Secretary's authority to manage water in the Upper Basin is far more limited and beyond the scope of this proposed action. For instance, the use of Compact apportionments in Colorado are determined by the physical and legal availability of water at a particular time and location. The authority to administer and distribute the waters of the State of Colorado are vested exclusively with the Colorado State Engineer. And allocations of water in the Upper Basin as among the Upper Division States are governed by the 1948 Compact.

V. Purpose and Need

NEPA requires a purpose and need for a proposed federal action because it sets the range of feasible alternatives to be carried forward for further detailed analysis.[56] The purpose and need should describe the goal or objective the agency is trying to achieve and the underlying problem or opportunity to which the agency is responding with the proposed action.

Reclamation's purpose for this proposed federal action is to update and expand coordinated operations of Lake Powell and Lake Mead in order to provide greater predictability given increasing hydrologic variability.[57] In addition, Reclamation's purpose includes creating additional mechanisms for conservation, to build resilience, and accommodate future needs and growth, with the caveat that

---

[53] For example, the effective date of the guidelines varies across the DEIS at ES-19, 1-1, 1-4, and 2-11.
[54] DEIS at 2-1.
[55] *Id.* at 2-5.
[56] *See* NEPA, § 102(2)(C)(iii); *Webster v. U.S. Dep't of Agric.*, 685 F.3d 411, 422 (4th Cir. 2012) (citing *Wyoming v. U.S. Dep't of Agric.*, 661 F.3d 1209, 1244 (10th Cir. 2011)).
[57] DEIS at 1-7.

future needs and growth are supported by available water supplies.[58] With respect to Basin Tribes, Reclamation's purpose is to provide enhanced opportunities for Basin Tribes to benefit from their water rights and to integrate unquantified Tribal water rights.[59]

Reclamation needs to undertake the proposed federal action because the Secretary is subject to certain mandatory legal requirements encapsulated in LROC.[60] Within its prescribed framework, LROC provides the Secretary significant discretion in the Lower Basin.[61] The current 2007 Interim Guidelines that implement LROC are expiring, and through experience, were shown to be inadequate.[62] Reclamation asserts that going forward, new, specific, and objective guidelines to implement LROC are needed to provide more advance notice and predictability for annual operations.[63] Reclamation's stated need describes that there already exists a supply-demand imbalance in the Colorado River System and this is likely to get worse over the course of the new guidelines.[64] The Post-2026 Operational Guidelines should be robust enough to reestablish a sustainable balance in the Basin and should integrate more innovative conservation and address Tribal concerns.[65]

To the extent the DEIS incorporates conservation as a component of the purpose and need for the federal action, it is flawed. Conservation is not the purpose or the need for new operational guidelines for Lake Powell and Lake Mead, but rather a mechanism to achieve or address the purpose and need.

In addition, Colorado requests clear definitions with respect to a number of the terms used in Reclamation's identified purpose and need and requests clarification to the extent Reclamation's intent differs from the description above.[66]

---

[58] *Id.* at 1-7.
[59] *Id.*
[60] *Id.* at 1-6.
[61] *See,* LROC, arts. I - III.
[62] DEIS at 1-6; *see also* Bureau of Reclamation, Review of the Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead, at 41 - 42 (Dec. 2020).
[63] *Id.* at 1-6.
[64] *Id.*
[65] *Id.* at 1-6 – 1-7.
[66] In Reclamation's purpose, the terms "Colorado River reservoirs," "Colorado River water supplies," and "Colorado River water users" seems to imply that Reclamation is limiting application to the Colorado River *mainstream* as defined in the Consolidated Decree. If this is correct, it should be made explicit, or if incorrect, clarified and made explicit. Reclamation should provide definitions for "conservation," "enhanced opportunities...to benefit," and "flexibility to build resilience" because these words and phrases are susceptible to multiple interpretations. In addition to the terms above,

a. **Learned Experience from Prior Operations**

Reclamation recognizes repeatedly in the DEIS that past experience is critical to informing future operations.[67] Over the past twenty years, storage in Lake Powell and Lake Mead has been depleted largely due to reservoir releases that do not respond to actual hydrologic conditions. Releases from storage under the 2007 Interim Guidelines ignored critical components of the mass balance of water across the Basin. Moreover, as has been clear since 2020, shortage conditions imposed by the 2007 Interim Guidelines and the 2019 Drought Contingency Plans ("DCPs") did not begin early enough and did not reduce uses to sustain critical infrastructure elevations at Lake Powell and Lake Mead during multi-year drought periods. In order to assure stability into the future, the Post-2026 Operational Guidelines must address the imbalance between available supply and demand, considering increased hydrologic variability exacerbated by climate change, and must rebuild storage in Lake Powell and Lake Mead.

Since Reclamation initiated this NEPA process in June 2022, Reclamation identified the need to develop sufficiently robust and adaptive operational strategies that could withstand a broad range of future conditions. On June 14, 2022, then-Reclamation Commissioner Touton testified to the Senate Committee on Energy and Natural Resources that the Basin States must develop plans to provide an additional 2 – 4 maf of water in the next year to respond to drought and stabilize the depleted system storage at Lake Powell and Lake Mead.[68] At that time, Reclamation outlined the significant changed conditions in the Colorado River Basin since the adoption of the 2007 Interim Guidelines.[69]

From 2000 to 2022, the natural flow at Lees Ferry was less than 11 maf in 50% of those years, and less than 8 maf in 13%.[70] "The 21st century has been 20 percent drier than the 20th century, and the 5-year average has declined by 33 percent in 23 years."[71] Reclamation acknowledged that "[f]uture strategies should consider these conditions and the likelihood of continued declines in supply."[72] In

---

the following words or phrases from the need require clarification: "major mainstream Colorado River reservoirs and system resources," "conserve," "efficiency improvements," and "augmentation."

[67] *See, e.g.*, DEIS at 1-1 – 1-2, 1-5 – 1-7, 1-30.

[68] *See* Letter from UCRC to M. Camille Calimlim Touton, Comm'r, Bureau of Reclamation (July 18, 2022) (Upper Division States' 5 Point Plan for Additional Actions to Protect Initial Units).

[69] Request for Input on Development of Post-2026 Colorado River Reservoir Operational Strategies for Lake Powell and Lake Mead Under Historically Low Reservoir Conditions, 87 Fed. Reg. 37884, 37885 – 37887 (June 24, 2022).

[70] *Id.* at 37885.

[71] *Id.* at 37886.

[72] *Id.*

fact, the 2007 Interim Guidelines "were based primarily on the modeling assumption of a stationary climate where future inflows were adequately represented in the observed historical record."[73] Now the "climate science tells us that the future temperatures in the Colorado River Basin will continue to warm and that we can expect an increased likelihood of experiencing deep, prolonged droughts."[74]

Given the realities of the hydrology of the Colorado River, Reclamation concluded that there is a need for guidelines that adapt to a "nonstationary, drying system," employ a deep uncertainty approach, and robust policies that withstand a broad range of future conditions that are not based on a single set of assumptions about water supply and demand.[75] Reclamation believed, moreover, that future policies must be tested across drought sequences that are longer and more severe than those that have been observed. "Absent such an approach," Reclamation emphasized, "policies are likely to be insufficiently robust, adaptable, and successful."[76] Subsequently, in August 2022, Reclamation declared a shortage condition in the Lower Basin for the first time.[77]

In June 2023, Reclamation reiterated this purpose and need for the guidelines in the scoping Notice of Intent for the EIS.[78] And in October 2023, when Reclamation published the scoping report, Reclamation identified the major purposes of the action: to update and expand management guidelines to provide a greater degree of predictability in water availability and build resilience to accommodate future needs and growth in the Basin.[79] These purposes stemmed from the fact that the Secretary is legally required to coordinate operations of Lake Powell and Lake Mead, the 2007 Interim Guidelines were expiring, and they had proved insufficient to protect the system and reduce risk. And Reclamation sought "more robust and adaptive guidelines…for the efficient and sustainable management of the major mainstream Colorado River reservoirs and system resources."[80]

---

[73] *Id.*
[74] *Id.*
[75] *Id.* at 37886 – 87.
[76] *Id.* at 37887.
[77] Bureau of Reclamation, Annual Operating Plan for Colorado River System Reservoirs 2022 (Dec. 8, 2021); *see* Bureau of Reclamation, Press Release, "Reclamation announces 2022 operating conditions for Lake Powell and Lake Mead" (Aug. 16, 2021), https://www.usbr.gov/newsroom/news-release/3950.
[78] Notice of Intent to Prepare an Environmental Impact Statement and Notice to Solicit Comments and Hold Public Scoping Meetings on the Development of Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead, 88 Fed. Reg. 39455, 39456 (June 16, 2023).
[79] Colorado River Reservoir Operations: Development of Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead, 88 Fed. Reg. 72535, 72536 (Oct. 20, 2023).
[80] *Id.*

Here, the DEIS describes the prolonged drought in the Colorado River Basin. Reclamation acknowledges that "[d]espite additional responsive actions to reduce the risk to the Colorado River system's critical infrastructure and water supplies,…storage in Lake Powell and Lake Mead continued to fall…[and] the reservoirs are currently near the historic low elevations seen in 2022 and 2023."[81] Notably, in 2022 and 2023, Reclamation developed the Supplemental EIS to the 2007 Interim Guidelines ("SEIS") to respond to those critical conditions and reduce risk to the System.[82] However, Reclamation changed its approach to the SEIS when the hydrology improved in 2023.[83] Colorado, and the other Upper Division States, warned Reclamation that a single good runoff year would not sufficiently reduce risk such that the System would recover after enduring 23 years of drought and overuse in the Lower Basin.[84] On the contrary, continued dry conditions coupled with the imbalance between available supply and demand in the Lower Basin would result in the Colorado River System remaining destabilized.[85] Reclamation nonetheless proceeded with the SEIS that included voluntary conservation goals for Lake Mead and modified modeling that showed a minimal risk of reaching critical elevations due to the improved hydrology.[86]

Also due to the above-average water year in 2023, Reclamation released water that had been moved to Lake Powell pursuant to the 2019 Drought Response Operations Agreement ("DROA"). In 2023, when Lake Powell was in the lowest elevation operating tier, Lake Powell released 8.58 maf, including approximately 131,000 acre-feet of DROA water that was intended to protect elevations in Lake Powell. An additional 40,000 acre-feet was also inadvertently released due to an operational error in balancing. This error is over 60% of what the Upper Basin

---

[81] DEIS at 1-2.
[82] Notice of Intent to Prepare a Supplemental Environmental Impact Statement for December 2007 Record of Decision Entitled Colorado River Interim Guidelines for Lower Basin Shortages and Coordinated Operations for Lake Powell and Lake Mead, 87 Fed. Reg. 69042, 69042 - 45 (Nov. 17, 2022); *see also* Bureau of Reclamation, Near Term Colorado River Operations, Draft Supplemental Environmental Impact Statement 1-7 – 1-8, 2-8, 2-15, 3-31, 3-57 (Apr. 2023).
[83] Bureau of Reclamation, Near-Term Colorado River Operations, Final Supplemental Environmental Impact Statement, unpaginated preamble letter beginning "Dear Reader for Final SEIS" (Mar. 2024); *see also* 88 Fed. Reg. 34151 (May 26, 2023) (withdrawing Draft EIS No. 20230051); EIS No. 20230146, Draft Supplement, BR, CO, Near-term Colorado River Operations Revised Draft Supplemental EIS, 88 Fed. Reg. 73840 (Oct. 27, 2023) ("SEIS").
[84] Letter from UCRC to Reclamation 2007 Interim Guidelines SEIS Project Manager, 1 (Dec. 11, 2023).
[85] *Id.*
[86] *See generally* SEIS Record of Decision (May 2024).

conserved in the 2024 System Conservation Pilot Project.[87] Subsequently, 2025 was the fifth lowest inflow on record, and Lake Powell released 7.48 maf. Today, Lake Powell is at 26% capacity and Lake Mead is at 29%. Current hydrologic forecasts project 2026 will be the third lowest inflow on record.

Given the inadequacy of the 2007 Interim Guidelines based on the history of operations, overuse in the Lower Basin, and unprecedented hydrologic conditions, the proposed federal action and EIS should include operations that are rooted in the reality of available supply and depleted storage in Lake Powell and Lake Mead. To avoid future mistakes, it is critical that the Post-2026 Operational Guidelines use actual hydrologic conditions for decision-making and allow for the restoration and protection of storage in both reservoirs.

b. **Meeting the Purpose and Need in this Action**

On the whole, Reclamation seeks to provide more robust operating provisions to address the continued loss of storage and potential for increasing severity of drought and low runoff conditions. Going forward, Reclamation aims to prudently manage Lakes Powell and Mead to ensure sustainable operations within its authority under the Law of the River.[88]

As set forth above, certain aspects of the LROC are mandatory because they derive from statutory mandates and Compact considerations. At the same time, LROC affords the Secretary significant discretion in implementing its criteria. The alternatives Reclamation proposes must be consistent with Reclamation's authority under the Law of the River, built upon LROC's scaffold, and meet the purpose and need of the proposed action. Alternatives that do not meet these standards should not be considered in the DEIS.

Given past operating experience, Colorado suggests that the operational actions contained in Reclamation's proposed alternatives should include (1) operations for a drier, more variable future that adapt and respond to actual hydrology; (2) mechanisms to rebuild depleted storage in Lake Powell and Lake Mead and to protect storage into the future; (3) shortages that recognize actual uses in the Lower Colorado River System and how they are currently unsustainable and put the entire System at risk; and (4) operations that do not favor one basin over the other. Only these types of concrete, objective operational actions can meet the

[87] The Upper Basin conserved a total of 63,630 af in 2024. UCRC, Seventy-Sixth Annual Report of the Upper Colorado River Commission 21 (Sept. 30, 2024), http://www.ucrcommission.com/wp-content/uploads/2025/07/UCRC-WY2024-Annual-Report.pdf.
[88] DEIS at 1-2, 1-4.

stated purpose and need of the federal action. These objectives are missing from the alternatives proposed in the DEIS.

VI. Alternatives Analysis

Reclamation must analyze a reasonable range of alternatives in the EIS, and each alternative must be rigorously explored and objectively evaluated.[89] A reasonable alternative is one that is technically and economically feasible and meets the purpose and need of the proposed action.[90] As drafted and modeled in the DEIS, Reclamation's alternatives contain operational components that may conflict with existing law, exceed Reclamation's authority, are not feasible, and ultimately do not meet the purpose and need of the proposed federal action.

a. Insufficient Range of Reasonable Alternatives

1. Majority of Alternatives Require Additional Authorities

Reclamation states that, with the exception of the No Action Alternative and the Basic Coordination Alternative, Reclamation's range of alternatives incorporates "components that would require new authorities" to fully implement.[91] It is unclear from the DEIS what specific new authorities Reclamation intends to pursue to fully implement the Enhanced Coordination, Maximum Operational Flexibility, and Supply Driven Alternatives. Reclamation must expressly and specifically identify what additional authorities are needed to implement these alternatives. Based on Colorado's review of these alternatives, it appears that they would not only require significant statutory overhauls, but some aspects would also require agreement of the States. As recognized by Reclamation,[92] extensive statutory modification or changes to the law that are unlikely to be acceptable among stakeholders, are too remote and speculative to include in this DEIS. Therefore, the Enhanced Coordination, Maximum Operational Flexibility, and Supply Driven Alternatives should not be subject to detailed consideration in the FEIS.

This leaves the No Action Alternative and the Basic Coordination Alternative, which Reclamation asserts can be implemented immediately without additional authority or State consensus. However, as currently formulated, the No Action Alternative does not meet the purpose and need and includes elements that are inconsistent with no-action by Reclamation. Similarly, the Basic Coordination

[89] NEPA, § 102(2)(c).
[90] *See* NEPA, § 102(2)(c)(iii).
[91] DEIS at ES-8.
[92] *Id.* at 2-36.

Alternative as currently contemplated would require Reclamation to "identify the conditions under which further action would be required, including adjustment of operations and prompt action to seek additional authorities, if needed."[93]

Out of the five alternatives proposed in the DEIS: three are remote and speculative, one does not meet the purpose and need, and one might meet the purpose and need but not for the full duration of a potential twenty-year term of the Post-2026 Operational Guidelines. This does not constitute a reasonable range of alternatives required by NEPA.[94]

2. Majority of Alternatives Do Not Impose Sufficient Lower Basin Shortage

Similarly, the DEIS likely does not analyze a reasonable range of alternatives because the No Action, Basic Coordination, and the Supply Driven Alternatives do not provide sufficient shortage reductions in the Lower Basin to meet the purpose and need of the proposed action. Reclamation recognizes in this DEIS that "[g]enerally, higher shortages correspond to lower frequency and smaller volumes of dead pool–related reductions…[and in] most cases, more aggressive shortage policies can improve system robustness."[95] In the past twenty years, shortages imposed under the 2007 Interim Guidelines and the DCPs occurred too late and in insufficient quantities. The first shortage condition in the Lower Basin was declared in 2022, even though Reclamation recognized the Basin was experiencing a historic drought since 2000.[96] Despite the 2007 Interim Guidelines and the DCPs, Reclamation required additional "operating tools to sufficiently protect system operations,"[97] because "it is foreseeable that without appropriate responsive actions and under a continuation of poor hydrologic trends, major Colorado River reservoirs could continue to decline to "dead pool"…."[98]

Therefore, in this EIS, a reasonable range of alternatives should include shortages in the Lower Basin consistent with the Secretary's authority, and in amounts that have the potential to result in sustainable, long-term operations. The No Action, Basic Coordination, and Supply Driven Alternatives in the DEIS do not produce sufficiently robust shortages and would likely repeat the same outcomes we have seen from the 2007 Interim Guidelines and DCPs.

---

[93] *Id.* at 2-12.
[94] *See* NEPA, § 102(2)(c).
[95] DEIS at 3-58.
[96] *See* Bureau of Reclamation, 2023 Annual Operating Plan (Nov. 22, 2022).
[97] Revised Draft SEIS at 1-12 (Oct. 2023).
[98] *Id.* at 1-7.

b. **Comments Applicable Across Alternatives**

Colorado has a number of comments that apply to more than one alternative. These comments are set forth below to minimize duplication.

1. Assumptions for Upper Basin Conserved or Contributed Water

With respect to the Upper Basin conservation actions contemplated by the Enhanced Coordination, Maximum Operational Flexibility, and Supply Driven Alternatives, Reclamation assumes rules for conversion of Upper Basin water to "system water."[99] Reclamation does not have the unilateral authority to determine conversion of Upper Basin water, nor can Reclamation require mandatory contributions from the Upper Basin because such actions "would require agreements outside of Reclamation's control."[100] Therefore, the alternatives analysis in the DEIS is flawed due to these impermissible assumptions.

Further, the DEIS impermissibly assumes certain authorities and rules that result in infeasible alternatives. Reclamation recognizes in the DEIS that any Upper Basin contribution program would be subject to separate agreements with the Upper Division States and the contribution amount in any given year would depend on hydrology. The DEIS should model alternatives that do not rely on reduced water use in the Upper Basin, effectively treating those reductions as mandatory.[101] After all, without inclusion of the Upper Basin's conserved or contributed water, these alternative modeling outcomes would be different.

Finally, to the extent the DEIS relies upon releases from CRSP Upstream Initial Units to protect infrastructure at Lake Powell, it is flawed. Reclamation does not have the unilateral authority to make such releases for the proposed purposes provided in the DEIS. And even if it did, Reclamation fails to properly analyze the impacts of those releases. Reclamation assumes certain releases from the CRSP Upstream Initial Units will occur in order to protect infrastructure at Glen Canyon Dam and, in some alternatives, help offset shortages in the Lower Basin. But Reclamation dismisses any active recovery operations at those facilities, simply assuming natural recovery will occur in years without such releases.[102] And Reclamation does not analyze the impacts of such releases in the Upper Basin. Alternatives that go beyond Reclamation's existing authority and have impacts beyond the stated geographic scope must be excluded from analysis.

---

[99] DEIS at ES-17.
[100] *Id.* at 2-16.
[101] *See id.* at B-21; B-35; B-42.
[102] *Id.* at A-13, A-14.

Reclamation also relies on impermissible legal authorities for these contemplated releases. The DEIS contains repeated statements regarding unilateral releases from the CRSP Upstream Initial Units for unauthorized purposes. In fact, in several instances the reservation of authority is overly broad and undefined.[103] While Colorado supports Reclamation evaluating options to address infrastructure limitations at Glen Canyon Dam as a matter of operational security, Reclamation must do so in a separate action and pursuant to Reclamation's actual authorities. Moreover, Reclamation asserts in the DEIS that hydrologic conditions have "confound[ed] ongoing efforts to manage system risk,"[104] for the last twenty-five years. Ongoing dry hydrology, and as described above, operations that mined the contents of Lake Powell and Lake Mead for the last twenty-five years resulting in crisis-to-crisis management does not constitute an emergency, and Reclamation cannot create an emergency by making excess releases to the Lower Basin.

2. Assumptions for Lower Basin Conservation

Reclamation proposes expanding the Intentionally Created Surplus ("ICS") mechanism in its Enhanced Coordination, Maximum Operational Flexibility, and Supply Driven Alternatives. Colorado questions the legal validity of any form of carryover storage accounts in Lake Mead under the Law of the River and preserves all of its arguments in this regard, including, but not limited to, whether such activities are consistent with the 1922 Compact and the Consolidated Decree.

The language used to describe this program should accurately reflect the nature of the program, which is water banking, not conservation. In the Alternatives with a Lake Mead Mechanism, water that is not withdrawn from Lake Mead in a particular year is banked to be withdrawn in the future. When the program expires and the banked water is all withdrawn, there will be no long-term net reduction of water use as a result of the program. Instead, the program results in a change to delivery timing. Conversely, any Lake Powell Mechanism is necessarily water conservation because water users will forgo use of water to pass downstream, never to be used by Upper Basin water users again. In fact, this water will ultimately be consumed by Lower Basin water users.

Reclamation should use clear and unambiguous definitions that objectively describe the mechanism and the legal foundation thereof. Transparent terminology and process should be key components of the mechanism to support sustainable operations and better accounting. Operations related to individual water user accounts in Lake Mead must not affect operations upstream of Lee Ferry and must

[103] *Id.* at ES-6 n.1; ES-8; ES-10; 1-8; 1-9 n.10; 1-30; 2-5.
[104] *Id.* at ES-25.

include mechanisms that result in verifiable net benefits to the Colorado River System in the Lower Basin. Losses must be assessed at a rate that reflects reasonable and defensible assumptions for actual losses to prevent individual water user accounts from absorbing System water over time. Finally, Reclamation must be cognizant of perverse incentives that accompany the transfer of a public resource and be prepared to implement the mechanism in a way that ensures transparency, accountability, and the adaptability to resolve issues with such a program should they arise.

3. Assumptions Regarding Mexico

All of the alternatives include operational assumptions for water deliveries to Mexico and assumptions for Mexico shortage sharing with the Lower Basin.[105] Although disclaimers accompanying these assumptions indicate Reclamation's intent not to interfere with the 1944 Treaty with Mexico, Reclamation does not explicitly disclaim any authority to interpret the 1922 Compact regarding the Upper and Lower Basins' obligation with respect to Mexico. Within the United States, division of the 1944 Mexico Treaty obligation between the Upper and Lower Basins is exclusively governed by the 1922 Compact. To the extent the DEIS makes assumptions about a contested interpretation of the 1922 Compact, it exceeds the Secretary's authority and is outside the scope of this DEIS.

Additionally, Reclamation should provide an update on the discussions with Mexico to date. While coordination with Mexico adheres to procedures that are appropriately outside the scope of this EIS, there could be implications in the alternatives analysis if the alternatives rely too much on actions by Mexico. For example, if an alternative relies on a substantial action by Mexico, and if outside discussions with Mexico are not aligned with this NEPA process, that alternative could be too speculative and remote to adequately analyze and meet the standards of NEPA.

4. Colorado River Simulation System ("CRSS") Modeling

"CRSS…is the core simulation tool, providing monthly and annual outputs of key variables including reservoir storage, reservoir elevations, dam releases, and river flows. The simulation is based on a mass-balance calculation that accounts for water entering the system, water uses (diversion and consumptive use), water losses (evaporation), intervening gains and losses, and water movement through the system."[106] System-wide water resources in the Upper Basin are well represented in

[105] *See id.* at A-36, A-44 – A-45, A-47 – A-48.
[106] *Id.* at 3-7; *see also* A-2.

the CRSS model; Reclamation touts that it includes 12 Upper Basin reservoirs and 222 Upper Basin water users.[107]

However, the same cannot be said for the Lower Basin. In the Lower Basin, only the mainstream is considered. This leaves out most of South and Central Arizona and the Nevada tributaries of the Virgin and Muddy Rivers. The DEIS depicts how most of Arizona is simply greyed out and not even identified in the "Colorado River Natural Flow Basins."[108] Within this grey area is the Salt River Project as well as nearly a dozen Reclamation-managed surface reservoirs.[109] In fact, Reclamation is currently financially supporting an interconnect that would allow two-way flow that would intermingle mainstream Colorado River water and water from the grey zone.[110] Reclamation's own data indicates that Arizona tributaries consumed an average of 2.3 maf annually between 2006 and 2024.[111] However, little of this is reflected in the CRSS modeling.

As a consequence, the simulation tool underpinning Reclamation's analysis does not allow for informed decision-making as to the viability of the alternatives or make use of reliable data or available resources as required by NEPA. Instead, it includes the Upper Basin in detail, but omits an entire basin's tributary river systems occupying most of a Lower Division State and consumption of millions of acre-feet that are otherwise unaccounted for.

5. Continuing Current Strategies

Reclamation describes Continuing Current Strategies as a point of comparison for the other alternatives.[112] While this tool is not inherently problematic, comparison is only possible if the discretionary elements of the Continuing Current Strategies are not duplicative of those used in the No Action and Basic Coordination Alternatives. Therefore, the Continuing Current Strategies, No Action Alternative, and Basic Coordination Alternative should use different

[107] *Id.* at A-7.
[108] *Id.* at A-5 map A-2.
[109] These include: C.C. Cragin Dam, Horseshoe Dam, Bartlett Dam, Theodore Roosevelt Dam, Horse Mesa Dam, Mormon Flat Dam, Stewart Mountain Dam, New Waddell Dam, and Imperial Diversion Dam.
[110] *See* Kyle Tilghman, Director of Water Strategy, Salt River Project Agricultural Improvement and Power District, Presentation at Salt River Project Agricultural Improvement and Power District Water Committee Meeting on Updates on the Verde Reservoirs Sediment Mitigation Project and the SRP - CAP Interconnection Facility, at slide 9 (Sept. 23, 2025) (indicating that Reclamation agreed to a $154 million dollar grant to help fund the SRP-CAP Interconnection Facility).
[111] *See* updated CU&L data released December 19, 2025.
[112] DEIS at 3-7.

elements so long as they are consistent with the Law of the River and follow LROC's framework.

c. No Action Alternative

In addition to the general comments that apply across the alternatives, as discussed in the previous section, the No Action Alternative, as drafted and modeled in the DEIS, contains operational components that may conflict with existing law, are not feasible, and ultimately do not meet the purpose and need of the proposed federal action. If Reclamation requires additional federal authorities to implement this alternative, Colorado requests that Reclamation identify the specific Congressional authority needed and clarify how this alternative meets the criteria for no action.

Under NEPA, the No Action Alternative does not have to meet the purpose and need but must provide a basis for consideration of the "consequences of taking no action."[113] Accordingly, the DEIS' No Action Alternative must show what would happen if management of Lake Mead and Lake Powell reverted to the surviving operational authorities for those facilities. As acknowledged by Reclamation, that authority is reflected in the LROC framework.[114] As further acknowledged by Reclamation, the LROC provides the opportunity to craft guidelines that include the specificity and predictability Reclamation seeks as a part of its purpose and need.[115] But Reclamation's No Action Alternative in the DEIS does not meet the requirements of NEPA.

Instead of focusing on a reasonable range of operations under the LROC, the No Action Alternative improperly fixes the No Action Alternative to rigid prior assumptions that fail to properly implement LROC. For example, the No Action Alternative establishes a de facto fixed minimum release of 8.23 maf from Lake Powell, a decision that prejudices the Upper Basin's position under the Law of the River, despite the specific admonishment in the LROC not to prejudice the positions of the parties in this regard and a Secretarial determination that LROC does not prescribe a fixed minimum release of 8.23 maf per year but an "objective" of 8.23 maf per year.[116] Further, it carries over the equalization process from the 2007 Interim Guidelines, which misapplies the order of operations in LROC, undermining protection of 602(a) Storage. Finally, it caps Lower Basin shortages at

---

[113] *See*, *e.g.*, *Ctr. for Biological Diversity v. Bernhardt*, 982 F.3d 723, 734-35 (9th Cir. 2020).
[114] DEIS at 2-6.
[115] DEIS at 2-6.
[116] *See* LROC, art. II(5); *see also* Bureau of Reclamation, The Colorado River Documents 2008, at A-379 - 83 (2010) (Letter from Gale Norton, Secretary, U.S. Dep't of the Interior, to Jon Huntsman, Governor of Utah (May 2, 2005)).

an amount that is not sufficient to address even evaporation and system losses. It is unclear why the DEIS uses this cap because the maximum shortage under the 2007 Interim Guidelines was 625,000 acre-feet,[117] yet as Reclamation recognizes, the 2007 Interim Guidelines were unquestionably not robust enough. Reclamation then attempts to reframe these incorrect substantive policy decisions as "refinements."[118]

The DEIS properly identifies the LROC as the No Action Alternative. But Reclamation used flawed inputs and assumptions in applying the LROC to the No Action Alternative here. If Reclamation had properly applied the framework of the LROC within the Law of the River, the DEIS would reflect Reclamation's discretion to select different inputs than those used for the 2007 Interim Guidelines. The No Action Alternative does not meet the purpose and need of the proposed federal action as it is currently formulated. But this appears to be the result of Reclamation's subjective inputs rather than a reflection of what it would be compelled to implement following expiration of the 2007 Interim Guidelines and pursuant to the LROC process.

d. **Basic Coordination Alternative**

Unlike the other action alternatives proposed in the DEIS, Reclamation asserts that the Basic Coordination Alternative could be implemented immediately in WY2027 because it purports to operate within Reclamation's existing authorities and within the framework of the Law of the River.[119] Colorado is encouraged to see Reclamation looking to its existing authorities rather than relying on extensive modifications to the Law of the River. Such an alternative would likely be feasible and able to meet the purpose and need. However, as drafted and modeled in the DEIS, the Basic Coordination Alternative contains operational components that may exceed Reclamation's authority and do not meet the purpose and need of the proposed federal action. If Reclamation does not require additional federal authorities to implement this alternative, Colorado requests that Reclamation identify the existing authorities for the proposed components identified below.

Reclamation asserts that this Alternative does not require additional authority from Congress, nor does it contemplate modifications that would run contrary to the 1922 Compact. However, the Basic Coordination Alternative

[117] The maximum shortages for the Lower Division States in the 2007 Interim Guidelines is 500,000 acre-feet. In combination with the shortages for Mexico under Minute 323, the total shortage under the 2007 Interim Guidelines was 625,000 acre-feet. It is unclear why Reclamation chose 600,000 acre-feet as it does not align with either of these values.
[118] *See* DEIS at 2-6. The full scope of Reclamation's "assumptions" and planned operational "refinements" is not clear and should be fully disclosed.
[119] *Id.* at ES-11.

incorporates operational elements that include the CRSP Upstream Initial Units. Specifically, this Alternative provides for an elevation trigger in Lake Powell of 3,525 feet, which causes increased releases from the CRSP Upstream Initial Units, and provides for recovery actions at such facilities.[120] As drafted in the DEIS, this operational element would require additional authorities to implement.

Further, in order for this Alternative to properly comply with the Law of the River as Reclamation asserts it does, several aspects of the Basic Coordination Alternative should be corrected. Specifically, it must properly apply aspects of LROC that are directly derived from mandatory aspects of the Law of the River. Reclamation hints that implementation of this Alternative depends upon "legal, operational, and engineering judgment regarding future operations…."[121] While this may be true with respect to certain discretionary actions under the Law of the River, it is not true with respect to the Secretary's mandatory obligations that may not be ignored or overlooked. To the extent that Reclamation is exercising "legal" judgment with respect to the Basic Coordination Alternative, Reclamation must clearly explain what judgments it is making.[122]

In addition to the mandatory obligations imposed by underlying law, LROC provides the Secretary considerable discretion and opportunity to craft an alternative, or even several alternatives, that could be analyzed as part of this NEPA process so long as they adhere to certain basic requirements. Contrary to Reclamation's critique of LROC, this flexible framework provides the Secretary the opportunity to exercise discretion and develop the guidelines considered necessary to provide specificity and predictability as explained below.

1. Shortage Guidelines to Reduce Deliveries from Lake Mead

The Basic Coordination Alternative limits Lower Basin Shortage to 1.48 maf. Reclamation attempts to explain that 1.48 maf is the estimate that will ensure "an assumed minimum flow is available for infrastructure protection and delivery for municipal use by CAP users and other Fourth Priority mainstem entitlement holders in Arizona when mainstream shortage is distributed by priority."[123] However, this is an arbitrary limit and Lower Basin shortages need not be limited to this amount. Indeed, Reclamation's 2025 Alternatives Report[124] proposed Lower Basin shortages up to 3.5 maf per year in the "Federal Authorities" Alternative, the

[120] *Id.* at 2-16.
[121] *Id.* at 2-11.
[122] *See Loper Bright Enters. v. Raimondo*, 603 U.S. 369 (2024).
[123] DEIS at 2-12.
[124] Bureau of Reclamation, Alternatives Report[:] Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead (Jan. 2025) ("2025 Alternatives Report").

prior iteration of this Alternative,[125] "to achieve protection of critical infrastructure within the Department's and Reclamation's current statutory authorities and absent new stakeholder agreements."[126] Reclamation does not explain why it changed its position from the Alternatives Report shortage volume to the DEIS volume, nor does it provide any reasoned analysis for its dramatically different view of its authority to impose shortages in the Lower Basin. The shortage determination is to be made through a rigorous process and analysis that considers "all relevant factors" outlined in the Law of the River.[127] Based on consideration of all of these criteria, the Secretary may declare a mainstream shortage, and thereafter, allocate the shortage to the Lower Basin mainstream users as required by law.

In revising the Basic Coordination Alternative, Reclamation should revisit its legal authority to impose Lower Basin mainstream shortages in order to properly apply the relevant law, while also availing itself of the opportunity to craft guidelines that meet the stated purpose and need of the federal action. Colorado believes that greater maximum shortages will likely improve the long-term performance of this Alternative.

2. Coordinated Reservoir Operations of Powell and Mead

The proposed implementation of the Basic Coordination Alternative also fails to adhere to the process prescribed by the LROC and undergirded by statutory obligations and ignores opportunities to craft specific and predictable guidelines. The LROC prescribes an order of operations process to coordinate operations between Lakes Powell and Mead. The process ensures sufficient storage in Lake Powell and the CRSP Upstream Initial Units pursuant to Section 602(a),[128] and then coordinates operations between Lake Powell and Lake Mead through adjustment of Powell releases based on the determination of the 602(a) Storage quantity.[129] This process requires the Secretary to consider all relevant factors, including but not limited to factors specified in the 1968 Act and other enumerated factors in the LROC.

Colorado notes that coordinating releases in a manner that considers a variety of relevant factors and is intended to maintain storage in Lake Powell when appropriate, may serve the purpose of protecting Lake Powell infrastructure more effectively than any alternative that seeks to leverage nonexistent or questionable authority over the CRSP Upstream Initial Units.

---

[125] 2025 Alternatives Report at 18 fig.3.
[126] *Id.* at 16.
[127] LROC, art. III(3)(c).
[128] *Id.*, art. II(1).
[129] *Id.*, art. II(2) – (3).

3. Surplus Guidelines for Lake Mead

Finally, as with Lower Basin mainstream shortages and coordination between Lake Powell and Mead, the LROC provides a process and criteria to be used with respect to surplus guidelines to increase deliveries from Lake Mead. Currently, the Basic Coordination Alternative allows surplus determinations based exclusively on a single Lake Mead elevation or on a modeling concept that is used to provide storage capacity for flood events. Clearly, the LROC, and its underlying legal authorities, require and allow a greater variety of considerations with respect to mainstream surplus, so long as the appropriate process is followed and criteria are considered. Reclamation should revisit this element consistent with the process in the LROC.

e. **Enhanced Coordination Alternative**

As drafted and modeled in the DEIS, the Enhanced Coordination Alternative contains operational components that may conflict with existing law, exceed Reclamation's authority, are not feasible, and ultimately do not meet the purpose and need of the proposed federal action. If Reclamation requires additional federal authorities to implement this alternative, Colorado requests that Reclamation identify the specific Congressional authority required.

1. Upper Basin Conservation Mechanism

The Enhanced Coordination Alternative contemplates conservation activities in the Upper Basin that would contribute to a pool in Lake Powell. It is unclear whether this Alternative contemplates individual user accounts in the conservation pool. The DEIS also assumes contribution targets up to specified annual amounts to the pool, increasing over the period of analysis. One of the stated primary purposes of the Upper Basin conservation pool under this Alternative is to offset shortages in the Lower Basin above 1.5 maf. The DEIS states that when Lower Basin shortages are greater than 1.5 maf, "a volume equal to one-third of the volume above 1.5 maf would be converted from the Lake Powell pool into system water such that the total of Lower Basin shortages and conversion of Upper Basin water equal the required total shortage volume…. If the prescribed 2-to-1 volume is not available in the Lake Powell conservation pool, 100 percent of the available volume would be converted, and the Lower Basin would take the balance of shortages."[130]

These operational components are problematic legally and practically. The concept of shortage sharing between the Upper Basin and the Lower Basin in this

[130] DEIS at 2-21.

manner conflicts with fundamental provisions of the Law of the River. Moreover, these operations are not technically feasible. The shortage amounts and triggers ignore the actual uses in the Lower Colorado River System as provided in the CU&L data. And because evaporation and system losses total at least 1.2 maf, there will always be a demand for conversion of Upper Basin conserved water. This, in effect, makes water from the Upper Basin apportionments mandatory to offset shortages in the Lower Basin in all but the wettest years.

2. Influences on Lake Powell Releases

The Enhanced Coordination Alternative bases Lake Powell's releases, in part, on physical storage contents in Lake Mead, which includes conservation pools in Lake Mead. Tying Lake Powell releases to the contents in Lake Mead may not meet the purpose and need of providing more robust guidelines and sustaining the System. This operation is similar to balancing under the 2007 Interim Guidelines, and like those guidelines have demonstrated, would allow opportunities for manipulation and a heightened risk of System failure when Lake Powell is at low elevations. The influences on Lake Powell releases under this Alternative may introduce greater operational uncertainty, contribute to unsustainable releases, and not provide more robust or sustainable guidelines than the 2007 Interim Guidelines.

Moreover, Reclamation's modeling in the past has shown a heightened risk of System failure with balancing releases when Lake Powell is at low elevations. In order to protect critical elevations at Lake Powell, protect critical infrastructure at Glen Canyon Dam, and continue to provide a secure source of supply for ongoing releases to Lake Mead, all Powell releases that are based on the storage contents of Mead should be removed from potential operations in the FEIS.

3. Lake Powell Releases and the Long-term Experimental and Management Plan ("LTEMP")

The Enhanced Coordination Alternative seeks to use the LTEMP to constrain annual operations at Glen Canyon Dam.[131] This proposed operation is inconsistent with the structure and scope of the LTEMP, which is necessarily based on the annual release from Glen Canyon Dam. Operations pursuant to the LTEMP dictate monthly, daily, and hourly releases from Glen Canyon Dam. The LTEMP cannot impact annual release volumes from Glen Canyon Dam and is tailored to the annual release dictated by other components of the Law of the River. Importantly, the projected annual release volume from Glen Canyon Dam under the 2007

[131] *Id.* at 2-20.

Interim Guidelines becomes the basis for the monthly LTEMP operations. As Reclamation acknowledges, the LTEMP will likely be revisited after issuance of the Record of Decision in this process. Reclamation must not base annual releases from Glen Canyon Damon LTEMP parameters.

The Enhanced Coordination Alternative would also grant Reclamation the sole discretion to modify annual releases to protect downstream resources between Lake Powell and Lake Mead.[132] This may not be consistent with the Grand Canyon Protection Act of 1992, and would negate the purpose and process of the LTEMP. The modification of annual releases to meet downstream resource goals is inconsistent with the Law of the River. Even though the Grand Canyon Protection Act requires the Secretary to consider downstream resources in the operation of Glen Canyon Dam, the Secretary is required to do so in a manner fully consistent with and subject to the Law of the River.[133] This would include the separate and distinct annual determinations of storage and releases required by the 1968 Act.[134] Pursuant to the requirements of the Grand Canyon Protection Act, the LTEMP implements adaptive management processes and criteria by providing input from stakeholders regarding sub-annual modifications to Glen Canyon Dam operations, in order to meet the directives of the Grand Canyon Protection Act in compliance with the Law of the River.[135] The stakeholder process includes input from the Basin States, Tribal Nations, federal agencies, environmental groups, recreation interests, and hydropower interests. If Reclamation were granted sole discretion to modify annual release operations given downstream resource considerations, it would likely negate the purpose and process of the LTEMP and contravene the directives of the Grand Canyon Protection Act.

Ultimately, the mid-year adjustment and Reclamation's unrestricted discretion to modify releases at any point during the year may introduce more uncertainty and unpredictability into annual operations. This would directly defeat one of the primary purposes of the proposed federal action. Colorado notes that any unilateral decisions by Reclamation or the Secretary to alter the annual release from Lake Powell do not constitute an action by Colorado or the other Upper Division States for the purposes of determining compliance with Article III of the 1922 Compact. Any such action taken by Reclamation or the Secretary will not constitute consent, endorsement, or acquiescence from the Upper Division States.

---

[132] *Id.* at 2-20.
[133] Grand Canyon Protection Act of 1992, Pub. L. No. 102-575, § 1802(b), 106 Stat. 4669, 4669.
[134] 1968 Act, § 601(a)–(b); *see also* Grand Canyon Protection Act, §§ 1802(b), 1804(c)(2).
[135] *See* Bureau of Reclamation, Record of Decision for the Glen Canyon Dam Long-Term Experimental and Management Plan Final Environmental Impact Statement, at 12 – 15 (Dec. 2016).

4. Lake Mead Conservation Pools

Because the Enhanced Coordination Alternative ties Lake Powell releases to the physical contents in Lake Mead and requires additional releases of Upper Basin water to offset shortages in the Lower Basin above 1.5 maf, the operational elements of the conservation pools in Lake Mead are critical to the performance of the Alternative. As drafted, the conservation and protection pools in this Alternative include operational elements that may be feasible and increase stability, sustainability, and certainty in operations. For example, the Alternative requires a one-time 7% assessment at the time water is conserved in the conservation pool in addition to an annual proportional evaporation deduction. Colorado encourages Reclamation to adopt this method of assessment, which includes annual actual evaporation in addition to any proposed assessments for conservation pools, in the Preferred Alternative.

Additionally, Colorado requests further clarification regarding the federal protection pool in Lake Mead. It is unclear how this federal pool would operate within the legal framework of the Law of the River. The DEIS does not specify the verification, accounting, and operational considerations for the protection pool.

f. **Maximum Operational Flexibility Alternative**

As drafted and modeled in the DEIS, the Maximum Operational Flexibility Alternative contains operational components that may conflict with existing law, exceed Reclamation's authority, are not feasible, and ultimately do not meet the purpose and need of the proposed federal action. If Reclamation requires additional federal authorities to implement this alternative, Colorado requests that Reclamation identify the specific Congressional authority needed.

1. Indicators for Operations

The Maximum Operational Flexibility Alternative bases Lower Basin shortages on the storage contents of seven reservoirs, including the CRSP Upstream Initial Units. Not only does this conflict with the Law of the River, it also does not meet the standards required by NEPA. The CRSP Upstream Initial Units do not serve as a supply for Lower Basin water users. It would be arbitrary and legally flawed to modify Lower Basin shortages on volumes in reservoirs that do not serve Lower Basin entities. Because of this inappropriate indicator, the performance of this Alternative is likely flawed, and thereby would not meet the standards required by NEPA.

Additionally, because this Alternative uses the CRSP Upstream Initial Units to determine Lake Powell releases as well as Lower Basin shortages, it is unclear what "run of the river" operations would look like. Reclamation should specify what it means for "run of river" operations in the context of this Alternative.

Finally, while this Alternative uses the 7-reservoir combined storage concept to quantify sources of supply for Upper Basin and Lower Basin water users, the DEIS excludes the largest pool of mainstream Colorado River water in the Basin: water stored in Arizona aquifers as Long-Term Storage Credits. As described above, as of 2022, there were 12.2 maf of Colorado River water Long-Term Storage Credits available for recovery in Arizona aquifers. This volume is greater than the 8.7 maf and 6.2 maf that currently reside in Lake Mead and Lake Powell, respectively.

2. Basin-Wide Conservation Reserve

A key operational component of the Maximum Operational Flexibility Alternative is a Basin-wide conservation reserve that would be distributed between Lake Powell and Lake Mead. The Alternative expressly contemplates transactions across the Upper Basin and Lower Basin, creates new purposes for stored water in the reservoirs, and privatizes storage in Lake Powell and Lake Mead. The authorities needed to implement this Alternative extend far beyond the scope of legislative action. The fundamental elements of this operational component would require vast changes throughout the Law of the River, all of which are far too remote and speculative to constitute a reasonable alternative in this NEPA process.

Moreover, this Alternative grants Reclamation the sole discretion to modify annual releases from Lake Powell in allocating the reserve volume between reservoirs to meet infrastructure or downstream environmental resource goals.[136] As described above regarding the Enhanced Coordination Alternative, if Reclamation were granted sole discretion to modify annual releases given downstream resource considerations, it would negate the purpose and process of the LTEMP and contravene the directives of the Grand Canyon Protection Act. It is also unclear how Reclamation would legally and practically move water between the reservoirs for the purposes of the reserve.

Finally, the Alternative contemplates that the reserve would serve to offset Lower Basin shortages. Despite the characterization of the reserve as Basin-wide, any water stored from Upper Basin water users would be used to offset shortages in the Lower Basin above 2.0 maf. The conversion of this water would occur automatically, subject only to water availability in the reserve. These operational

[136] DEIS at 2-29.

components are problematic legally and practically. The concept of shortage sharing between the Upper Basin and the Lower Basin in this manner conflicts with fundamental provisions of the Law of the River. Moreover, these operations are not technically feasible. Because the reserve is used for offsetting shortage only to the extent water is available in the reserve, Reclamation should specify what occurs when there is no water available in the reserve and shortages in the Lower Basin exceed 2.0 maf.

It is also important that Reclamation clarify how the basis of total system storage (including CRSP Upstream Initial Units) for Lower Basin shortages impacts the shortage offsetting from the reserve. Additionally, the shortage amounts and triggers ignore the actual uses in the Lower Colorado River System as provided in the CU&L data. And it is likely that the evaporative losses exceed the one-time 10% assessment provided in this Alternative. A similar provision in the Lower Basin DCP resulted in vast under-assessment of evaporation in Lake Mead. A system assessment plus proportional actual evaporation should be assessed to any stored water, similar to what is contemplated in the Enhanced Coordination Alternative.

The DEIS notes that any operation of the conservation reserve "would not affect tracking of Lee Ferry flows."[137] Reclamation should clarify how the movement of water between basins, between Lake Powell and Lake Mead, and discretionary changes in the annual release from Lake Powell would not affect tracking of Lee Ferry flows. Colorado notes that any unilateral decisions by Reclamation or the Secretary to alter the annual release from Lake Powell do not constitute an action by Colorado or the other Upper Division States for the purposes of determining compliance with Article III of the 1922 Compact. Any such action taken by Reclamation or the Secretary will not constitute consent, endorsement, or acquiescence from the Upper Division States.

3. Coordinated Reservoir Operations

The primary mechanism used in this Alternative to coordinate operations of Lake Powell and Lake Mead is the conservation reserve. But this Alternative "does not have specific coordinated operations at high elevations."[138] Reclamation should clarify how this fits within the scope of the proposed action to implement guidelines that address Lake Powell and Lake Mead operations through their full operating range.

Moreover, the coordinated reservoir operations are based on the effective storage in CRSP reservoirs. As described above, there is no mechanism to release

[137] *Id.*
[138] *Id.* at 2-28.

water from the CRSP Upstream Initial Units to serve as supply for Lower Basin water users. The bases for the coordinated operations under this Alternative are arbitrary and inappropriate.

g. **Supply Driven Alternative**

As drafted and modeled in the DEIS, the Supply Driven Alternative contains operational components that may conflict with existing law, exceed Reclamation's authority, are not feasible, and ultimately do not meet the purpose and need of the proposed federal action. If Reclamation requires additional federal authorities to implement this alternative, Colorado requests that Reclamation identify the specific Congressional authority needed.

1. Fixed Annual Flow Amount

The Supply Driven Alternative bases Lake Powell releases on a fixed annual percentage of natural flow, specifically 65%. While this approach purports to be supply-driven and grounded in hydrology, it is legally and practically problematic and is not a sustainable or robust operation. This Alternative expressly relies on Lake Powell meeting a new required annual release amount.[139] In fact, it expressly requires the release of Upper Basin conserved water in Lake Powell to meet the flow obligation. Legally, this Alternative would conflict with the existing rights and obligations accorded under the Law of the River. Absent agreement among the States, any fixed natural flow release violates the Law of the River. And the specified amount of 65% necessarily includes impermissible legal assumptions under the 1968 Act and the 1922 Compact. Reclamation should specify how it arrived at 65%. Practically, this Alternative does not perform, drains the system, and therefore is not technically feasible and does not meet the purpose and need. Over the full modeling period of the DEIS, this Alternative protects elevation 3,500 feet in Lake Powell in fewer futures than even the Continuing Current Strategies comparative baseline, which Reclamation has stated does not meet the purpose and need.[140] Moreover, this Alternative requires up to 1.1 maf of "gap water" to perform and meet the desired purpose and need. Any alternative that requires fictitious water in order to work is not a feasible or reasonable alternative. Even if this Alternative is just a "modeling exercise," it was put forward as an action alternative in this DEIS. A reasonable action alternative, by definition, is one that is technically and economically feasible and that meets the purpose and need. By definition, the Supply Driven Alternative is not technically feasible and does not meet the purpose and need because it relies on speculative "gap water" and impermissible legal assumptions.

---

[139] *Id.* at 2-35.
[140] *Id.* at 3-32 fig.3-9.

2. "Gap Water"

The Supply Driven Alternative relies on "gap water" to perform and meet the required 65% flow obligation. The DEIS does not identify where "gap water" would come from or how it would specifically operate in this Alternative, except insofar as being "additional water…introduced into the system…."[141] Reclamation should specify from where "gap water" would be "injected" into Lake Powell. Additionally, including "gap water" in the analysis does not accurately reflect realistic impacts. The DEIS discusses at-length the deep uncertainty modeling used for the alternatives analysis, emphasizing that the focus of the approach is to convey actual risks facing the system and to contribute to sufficient protection against ongoing drought.[142] An alternative that relies on fictitious water does not show the actual risk to the system, which undermines the alternatives analysis and does not meet the standards under NEPA.

The DEIS specifies that the amount of "gap water" would be limited to no more than 23% of the Upper Basin's modeled depletion for that year, because that percentage is proportional with Lower Basin shortages. This is legally and technically problematic. First, imposing any amount of "shortage" on the Upper Basin in this proposed federal action conflicts with the Law of the River, especially to meet a newly imposed annual flow obligation that is contrary to existing law. Moreover, imposition of that "shortage" would not account for the significant shortages the Upper Division States already take due to hydrology. Second, the Lower Basin shortages from which the "gap water" amount derives is underestimated given the full uses shown in the updated CU&L data. Third, it impermissibly assumes a shortage sharing arrangement between the Upper Basin and the Lower Basin. Colorado reiterates that any assumption of reductions in use or curtailment in the Upper Basin is beyond the scope of this EIS. Uses in Colorado are determined by hydrology and the physical and legal availability of water at a particular time and location. The authority to administer and distribute the waters of the State are vested with the Colorado State Engineer.

3. Lower Basin Shortage and Conservation

The Supply Driven Alternative assumes as part of the total 2.1 maf Lower Basin shortage that Mexico will take 16% (up to 250,000 acre-feet), in either the priority or pro rata scenario. As described above, because the Supply Driven Alternative relies on a substantial action by Mexico, and if outside discussions with Mexico are not aligned with this NEPA process, this Alternative could be too speculative and remote to adequately analyze and meet the standards of NEPA.

[141] *Id.* at 2-35.
[142] *Id.* at ES-18.

Further, the amount of Lower Basin shortage provided in the Supply Driven Alternative is likely too low to meet the purpose and need of the proposed federal action. The operating experience under the 2007 Interim Guidelines and the Lower Basin DCP underscores the inadequacy of the shortage triggers imposed at critical reservoir elevations to address the impacts of dry hydrology and depleted storage. That inadequacy was exacerbated by continued overuse in the Lower Division States that triggered excess releases from Lake Powell despite decreased inflows into Lake Powell. The Supply Driven Alternative has the same failings. Because the Lower Division States' average use is at least 11.0 maf per year, as shown in the updated CU&L data, the 2.1 maf shortage limit is grossly inadequate.[143] This limit is especially inadequate given that evaporation and system losses alone are at least 1.2 maf, and as the Alternative assumes, Mexico would take 250,000 acre-feet of shortage. Because the shortage limit is too low, operations at Lake Mead are likely unsustainable, and would only serve to draw more water from Lake Powell as evidenced by the need to create "gap water" for the alternative to work. Moreover, the Supply Driven Alternative contemplates that water contributed to the Lower Basin conservation pool would have a one-time 5% assessment and then a 3% assessment in subsequent years, which would be converted to "system water." This would be an inaccurate way to treat an evaporation assessment because the water physically leaves the system. Reclamation should ensure, in any scenario, that credit is not given for water that does not physically exist. Regarding the method of distribution of shortages in the Lower Basin, Colorado takes no position, so long as the method complies with the Law of the River.

4. Upper Basin Actions

The Supply Driven Alternative incorporates operational elements specific to the CRSP Upstream Initial Units that mimic actions authorized pursuant to the 2019 DROA. Specifically, the Supply Driven Alternative provides for an elevation trigger in Lake Powell of 3,525 feet, which causes releases of up to 500,000 acre-feet per year from the CRSP Upstream Initial Units. This operational element includes recovery actions when Lake Powell's elevation is above 3,535 feet. As drafted, this operational element would require additional authorities to implement. While similar actions were performed under the 2019 DROA, they were importantly conducted pursuant to agreements between the Upper Division States and Reclamation. Moreover, a key component of the 2019 DROA that is notably absent in this Alternative is the planning process that utilizes the best available science to inform the release amounts, duration, triggers for recovery, and all the details required for such operations.

[143] As noted above, Reclamation should revise its consumptive uses and losses data to account for underground storage within the year such deliveries are made.

VII. Affected Environment & Environmental Consequences

NEPA requires that the EIS analyze all reasonably foreseeable environmental effects of the proposed federal action, including adverse effects that cannot be avoided, and irreversible and irretrievable commitments of federal resources.[144] Within the zone of reasonably foreseeable impacts are those that have a reasonably close causal relationship with the proposed federal action.

a. Disparate Treatment of Basins

The DEIS's impacts analysis notably excludes impacts to the Upper Basin. While this is seemingly consistent with the stated geographic scope of the proposed federal action,[145] there is a significant discrepancy between modeling assumptions for the alternatives analysis and assumptions for the impacts analysis that blur that geographic scope. In fact, the DEIS presents a problem where either the alternatives analysis is flawed or the impacts analysis is flawed, but both cannot be accurate in how Reclamation has drafted it. This problem highlights a disparity in how Reclamation treats the Upper Basin and the Lower Basin throughout the DEIS, undermining the balance of equities provided in the 1922 Compact.

The problem presented in the DEIS is this: either the impacts analysis appropriately excludes the Upper Basin because the actions contemplated in the Upper Basin are speculative, or the actions relied upon in the alternatives modeling are not speculative and, accordingly, impacts in the Upper Basin should be analyzed.[146] If Reclamation intends to look upstream of Lake Powell for operational components of the proposed federal action, it must analyze the reasonably foreseeable impacts of that action in the Upper Basin. But importantly, alternatives that go beyond Reclamation's existing authority and have impacts beyond the geographic scope must be excluded from analysis in the EIS.

1. Modeling Assumptions for Alternatives

The DEIS relies on modeling assumptions in the alternatives analysis that maximize the potential conservation activities in the Upper Basin.[147] Reclamation reasons that it must maximize these potential activities due to the "need to bound the analysis by evaluating maximum potential impacts."[148] But notably Reclamation

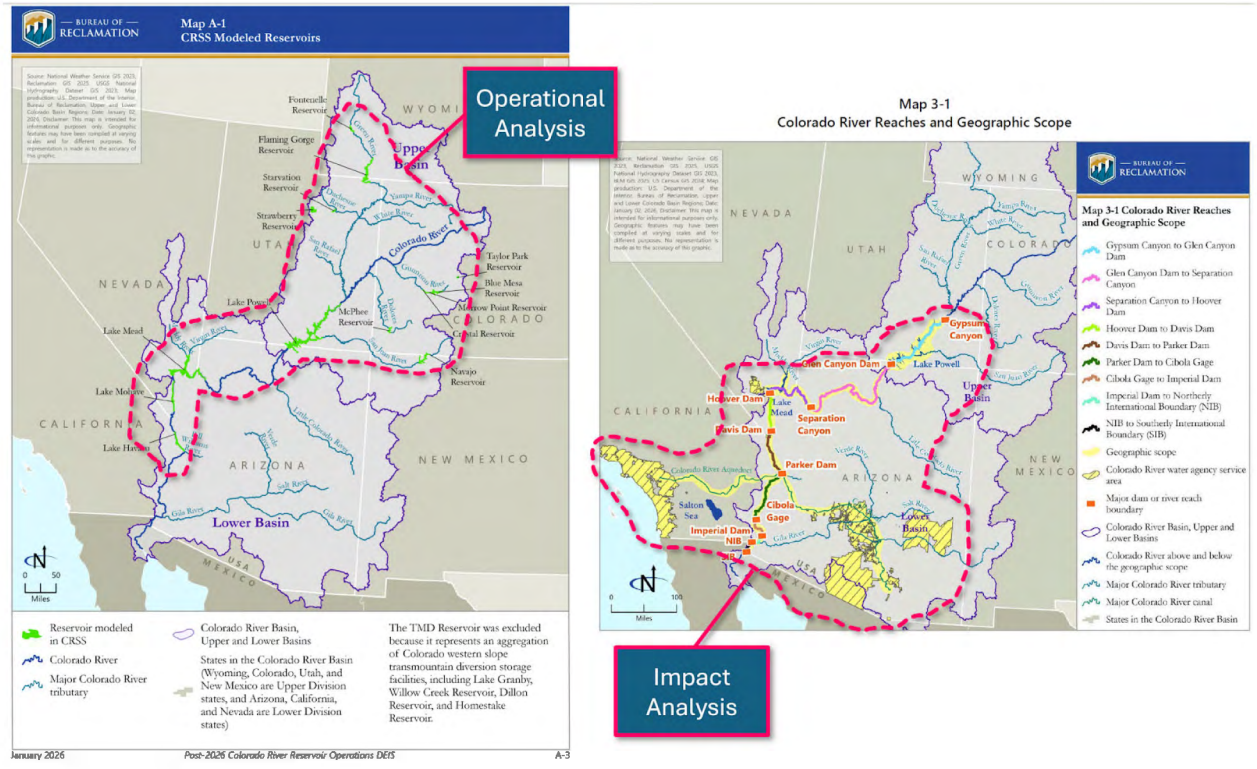
---

[144] NEPA, § 102.
[145] *See* DEIS at 3-25 ("[T]he Draft EIS does not expand the geographic scope of analysis upstream of Lake Powell.").
[146] *Id.* at 3-2.
[147] *Id.* at B-1.
[148] *Id.* at B-1.

focuses on the "maximum potential impacts on river flows downstream of Hoover Dam."[149] This modeling assumption for Upper Basin conservation, taken together with the sole focus of impacts in the Lower Basin highlights a disparity in how the DEIS treats the Upper Basin and the Lower Basin, undermining the balance of the equities provided by the 1922 Compact. In effect, the DEIS maximizes volumes of conservation in the Upper Basin to see how it will impact the Lower Basin, but it does not show how Upper Basin conservation would impact the Upper Basin. This error is particularly egregious because any activities in the Upper Basin are inherently limited by hydrology.

2. Assumptions for Impacts Analysis

For the impacts analysis, the DEIS first expands the geographic scope to include affected "water users in the Lower Division States in service areas that extend beyond the Colorado River floodplain."[150] This is emphasized in a comparison of DEIS Map 3-1 and Map A-1 below:



[149] *Id.* at B-1.
[150] *Id.* at 3-2.

Second, the impacts analysis excludes impacts of CRSP Upstream Initial Unit releases because such releases would operate within the existing Records of Decision at those facilities. But Reclamation continually states throughout the DEIS that releases from CRSP Upstream Initial Units could occur under an undefined and overly broad "emergency" authority necessary to respond to hydrologic conditions. As evidenced by the "emergency releases" made from the Aspinall Unit in 2021, there are vast environmental and economic impacts caused by such releases.

Third, with respect to Upper Basin conservation, the DEIS does not analyze impacts to the Upper Basin, even though it assumes maximum volumes in the alternatives analysis. Reclamation reasons that because Upper Basin activities are "unknown at this time and will not necessarily require federal decision making,"[151] impacts to the Upper Basin are excluded. It is accurate that Upper Basin activities would be subject to programs established by the Upper Division States and appropriately excluded from the scope of this DEIS. It is nonetheless confounding that Reclamation would model assumptions for Upper Basin conservation as a part of the alternatives analysis and then choose to ignore any possible impacts from those activities that were assumed to make the alternatives perform. Indeed, the Enhanced Coordination, Maximum Operational Flexibility, and Supply Driven Alternatives consider a range of operations above Lake Powell,[152] yet the impacts analysis does not consider the environmental impacts to the same geographic locations.

Finally, Reclamation asserts that the impacts analysis properly excludes the Upper Basin because the proposed federal action will have no impact on Upper Basin apportionments.[153] While any impact to compact apportionments is beyond the scope and authority of the Post-2026 Operational Guidelines, Upper Basin conservation activities would necessarily impact Upper Basin use of its apportionments because it involves water generated from activities that require water users to reduce or eliminate water use.

The DEIS appropriately identifies the geographic scope of the proposed action as Lake Powell and below to the Southerly International Boundary. However, Reclamation attempts to expand that scope in its assumptions with respect to actions above Lake Powell, while ignoring any impacts of those actions. The cure to this problem is not for Reclamation to conduct an impacts analysis in the Upper Basin. The cure is to exclude actions that go beyond Reclamation's authorities and stated geographic scope.

---

[151] *Id.* at 3-2.
[152] *See, e.g.*, *id.* at 2-5 ("Additional Activities Above Lake Powell").
[153] *Id.* at 3-48.

b. **Impacts to LTEMP Resources**

The DEIS recognizes that the LTEMP will likely be revisited given the new annual operating guidelines.[154] Colorado agrees: the LTEMP is subject to annual releases from Glen Canyon Dam and should not constrain the Post-2026 Operational Guidelines. Notably, though, the DEIS shows that long-term operations that rebuild storage in Lake Powell benefit sub-annual management options and offer greater protection of downstream resources below Glen Canyon Dam.[155] For example, the DEIS shows that Lake Powell elevations above 3,525 feet significantly reduce the risk of escapement of nonnative warm water fish species from Lake Powell into the river below the dam, which would significantly decrease the risk to the large population of humpback chub downstream. While LTEMP should not constrain the annual release operations of these Post-2026 Operational Guidelines, Reclamation must not overlook alternatives that rebuild storage and are therefore able to benefit a wide range of resources, consistent with the Law of the River.

However, Reclamation seems to take a step too far in this regard by inappropriately analyzing impacts of the reservoir itself rather than impacts of operations of the reservoir. For example, the DEIS inaccurately concludes that higher Lake Powell elevations may negatively impact fish passage and Endangered Species Act listed species habitat in the Colorado River and San Juan River inflow reaches.[156] Importantly, these stream reaches have not only been inundated before when Lake Powell was full, but were inundated when the Upper Colorado River and San Juan River Endangered Fish Recovery Implementation Programs ("Recovery Programs") were established. The Recovery Programs did not rely on these stream reaches as necessary components for the recovery of the listed species because inundation did not negatively impact the species of concern. Moreover, inundation of these reaches, including the Piute Farms Waterfall, may benefit the listed species by enabling movement upstream to spawn. And the San Juan Recovery Program could be capable of implementing fish passage structures that would mitigate nonnative fish movement upstream.

While Reclamation must analyze all reasonably foreseeable impacts of the proposed federal action, in this EIS Reclamation must analyze the impacts of the operations of the reservoir, not the impacts of the reservoir itself.

[154] *Id.* at ES-40.
[155] *Id.* at 3-61 – 3-66; 3-92 – 3-93; 3-149; 3-161.
[156] *Id.* at 3-92.

VIII. Other Considerations: Analysis of the UDS Alternative

Reclamation eliminated the UDS Alternative from analysis because it "did not sufficiently address the lack of an appropriate basis for the comprehensive and coordinated operations of Lake Powell and Lake Mead."[157] And Reclamation further purports that the Supply Driven Alternative incorporates elements of the UDS Alternative.[158] NEPA requires Reclamation to study, develop, and describe all technically and economically feasible alternatives.[159] A reasonable alternative is technically and economically feasible and meets the purpose and need of the proposed action.[160] The Supply Driven Alternative fails to adequately analyze the UDS Alternative. Moreover, detailed components of the Lower Basin Alternative are incorporated in the Supply Driven Alternative, but the detailed operational components of the UDS Alternative are not. NEPA requires Reclamation to fully analyze it as a reasonable alternative.[161] Therefore, the UDS Alternative should have been analyzed.

IX. Technical Addendum

Colorado has compiled a number of technical comments related to detailed provisions in the DEIS. The Technical Addendum is attached to this comment letter and incorporated herein by reference.

X. Reservation of Rights

Colorado's comments are intended to highlight overarching issues that will require acknowledgement or clarification as the EIS process continues. Colorado's failure to provide specific comments regarding details of this NEPA process shall not be construed as an admission with respect to any factual or legal issue or the waiver of rights for the purposes of any future legal, administrative, or other proceeding. Furthermore, Colorado reserves the right to comment further on the EIS documentation as Reclamation proceeds with subsequent phases of the NEPA process for Post-2026 Operational Guidelines and Strategies for Lake Powell and Lake Mead.

---

[157] *Id.* at 2-2.
[158] *Id.* at ES-8, 2-2, 2-30.
[159] NEPA, § 102(2)(C), (F).
[160] *See* NEPA, § 102(2)(C)(iii).
[161] *See, e.g., Nat. Res. Def. Council, Inc. v. Morton*, 458 F.2d 827, 836 (D.C. Cir. 1972) ("We reiterate that the discussion of environmental effects of alternatives need not be exhaustive. What is required is information sufficient to permit a reasoned choice of alternatives so far as environmental aspects are concerned.…Nor is it appropriate…to disregard alternatives merely because they do not offer a complete solution to the problem.").

XI. **Conclusion**

As a Colorado River Basin State, Colorado has a unique interest in the water supplies of the Colorado River Basin. As a signatory to the interstate compacts that govern the use and allocation of the Colorado River, Colorado has an obligation to protect the interests of its water users who rely on the Colorado River. We are committed to working with Reclamation and the Secretary as this NEPA process continues. Moreover, Colorado remains a partner and committed to engage with the other Basin States, Colorado River Basin Tribes, water users, and stakeholders.

Colorado appreciates the opportunity to provide these comments on the DEIS. We look forward to continuing our partnership with you and our partners across the Colorado River Basin as we move forward in protecting and managing this critical resource into the future.

Rebecca Mitchell

Rebecca Mitchell
Colorado Commissioner
Upper Colorado River Commission
303-866-3441 x3217
rebecca.mitchell@state.co.us

Lauren Ris
Director
Colorado Water Conservation Board
303-818-4602
lauren.ris@state.co.us

CC: Andrea Travnicek
David Palumbo
Rodney Smith
Tom Buschatzke
JB Hamby
John Entsminger
Estevan Lopez
Gene Shawcroft
Brandon Gebhart

TECHNICAL ADDENDUM

Note: Initial citations to the DEIS are included next to the relevant comments for convenience. However, the same comment may apply to more than one part of the DEIS. The same comment should be assumed to apply to all parts of the DEIS with the same or similar content.

Cite	Comment
ES-1	Reclamation states that the actions taken over the past two decades have not been robust enough to prevent the continued decline of Lakes Powell and Mead. Reclamation must also recognize that certain discretionary actions taken by Reclamation contributed to this decline.
ES-5	Reclamation states that the purpose of the proposed federal action is to "update and expand" management guidelines. Reclamation should specifically explain how it intends to expand management operations consistent with the Law of the River.
ES-6	Demand management is not pertinent to the analysis in the DEIS, and Reclamation should remove it.
ES-8	Reclamation states that the 2019 Colorado River Drought Contingency Authorization Act provided authorization necessary to fully implement the DCPs. Given the expiration of the DCPs and accompanying congressional authorization, Reclamation should clarify and specify what actions are included in the current proposed alternatives that would require similar authorization.
ES-10	Reclamation includes a footnote that its modeling assumptions are not intended to constitute an interpretation of application of the 1944 Water Treaty. However, Reclamation omits reference to the 1922 Compact, which governs how the Mexico treaty obligation and any recognized deficiency attributable to the Upper Division States will be achieved among the Basin States. Reclamation must therefore clarify in these footnotes that its modeling assumptions for water deliveries to Mexico are also contingent upon application of, and are not intended to constitute an interpretation of, the 1922 Compact.

ES-15	The DEIS states that additional restrictions in water deliveries to the Lower Basin will occur when Lake Mead is near dead pool, resulting in large reductions (referred to as "dead-pool related reductions"), but that these reductions are not considered an operational element of the alternatives. Reclamation should consider these reductions as an operational element of the alternatives.
1-12	Reclamation includes average annual flows in the Lower Basin including inflow from the Little Colorado River, Virgin River, and Bill Williams River, but omits reference to the Gila River. The Gila River is the largest tributary in the Lower Basin, is part of the Colorado River System, and should be added.
1-13	Reclamation's summary description of the 1963 Opinion is incomplete and misleading. Reclamation should describe the law as written.
1-13	Reclamation's summary description of the 1964 Decree is incomplete and misleading. Reclamation should describe the law as written.
1-14	Reclamation's description of the 1968 Act is incomplete and misleading. Reclamation should describe the law as written.
1-15 - 16	Reclamation's description of the apportionments to the Upper and Lower Basins under the 1922 Compact is incomplete and misleading. Reclamation should describe the law as written.
1-16	Reclamation's description of the Upper Division States' apportionment is incomplete and misleading. Reclamation should describe the law as written.
1-16	Reclamation's description of the Lower Division State apportionments is incomplete and misleading. Reclamation should describe the law as written.
1-16	Reclamation states that water that is stored off-stream by a Lower Division State (for future use by that state or by another Lower Division State) is accounted as consumptive use to the State that stored the water in the year it was stored. However,

	this description is inconsistent with historical descriptions of groundwater recharge in the CU&L reports. This should be clarified.
1-17	Reclamation states that almost all mainstream Colorado River waters apportioned to the Lower Basin have been fully allocated to specific entities for permanent irrigation or domestic use entitlements. It is unclear whether or how this statement takes into account off-stream storage. This should be clarified in the FEIS.
1-19 - 20	Reclamation's description of "Colorado River Basin water" use and Figure 1-3 are incomplete and misleading. Consumptive use in the Colorado River Basin must include consumptive uses and losses from the entire Colorado River System, including all tributaries. Further, although Reclamation's definition of "use" includes evaporation and seepage, it is not clear that such losses are accounted for in the Lower Basin. Finally, Reclamation's discussion of the Lower Division States' conservation efforts and drought response activities fails to take into account Reclamation's consumptive uses and losses data recently made available for the period 2006 – 2024. Reclamation's statements are not supported by the CU&L data, do not reflect a total reduction in use, are temporary, and do not include assessment of losses.
1-25 - 26	Reclamation's description of equalization does not reflect the process set forth in LROC or underlying law from the 1968 Act. Reclamation should describe the law as written.
1-28	Reclamation's description of off-stream storage of Colorado River water and development and release of intentionally created unused apportionment requires greater explanation, detail, and specificity. Reclamation should account for consumption of Colorado River System water upon its delivery to off-stream storage. Further, Reclamation should describe how deliveries of mainstream Colorado River System water in exchange for recovery of water in off-stream storage account for the constraints of recovery of off-stream storage.
2-13	Reclamation indicates that under the Basic Coordination Alternative, when Lake Mead is approaching the elevation 1,000

	feet, the Secretary will determine and implement additional measures as necessary to protect critically low elevations, consistent with the Law of the River. Reclamation should model reasonable assumptions with respect to these additional measures to identify and analyze the environmental impact thereof.
2-14	Reclamation notes that under the Basic Coordination Alternative, the annual release volume from Lake Powell would be based on flexible implementation of the LROC and provides for specified releases both above and below 8.23 maf. Colorado supports Reclamation's statement, but notes that the proposed release curve has a floor of 7.0 maf. The SEIS determined 7.0 maf was insufficient to provide Reclamation the tools it needed and recognized that releases down to 6.0 maf may be required to protect critical infrastructure.
3-4	Imperial Valley and Coachella Valley service areas should be depicted in Map 3-1 consistent with their listing as an "affected" water agency service area on page 3-2.
3-25	Reclamation's description of the purpose of the 1956 Act is inaccurate. Reclamation should describe the law as.
3-25	Reclamation should correct the typo "Blume" Mesa to "Blue" Mesa.
3-25	Reclamation's description of Lake Powell should be revised to reflect an operating range of 3,370 feet to 3,700 feet, which is consistent with Reclamation's description of Lake Powell's total live storage capacity and the operating range used for Lake Mead (3-27).
3-45	Reclamation's list of the most notable documents in the Law of the River should also include the 1948 Compact and the 1956 Act.
3-45 - 46	Reclamation's description of apportionments under the 1922 Compact is misleading and incomplete. Reclamation should describe the law as written.

3-56	Reclamation's footnote 10 appears to contain a typo: "Lake Powell" should be changed to "Lake Mead."
3-144	It appears Reclamation is not listing federally recognized tribes but rather historic tribal associations. Reclamation should clarify and be consistent in the manner it refers to tribes here and in Technical Appendix 18.
3-200	Reclamation states that the Upper Basin Tribal agricultural operations would benefit from conservation pools contemplated in several of the DEIS's alternatives. Reclamation should clarify this statement given the geographic scope of the proposed federal action and the DEIS's exclusion of impacts to the Upper Basin.
Glossary – 1	"Annual Operating Plan" should be clarified to include its purpose to operationalize mandatory obligations of the Secretary under the Consolidated Decree and the 1968 Act.
Glossary – 2	Reclamation should include a definition of "augmentation."
Glossary – 2	Reclamation should include a definition of water "banking" that is distinct from "conservation."
Glossary – 2	Reclamation should revise "Basin States" to be consistent with 1922 Compact.
Glossary – 2	Reclamation should clarify the mechanism of creation for Binational ICS.
Glossary – 3	Reclamation should include a definition of "Colorado River water" as this term is used in the DEIS, but it is unclear how if differs from other terms such as "Colorado River system" water.
Glossary – 3	Reclamation should add to the definition of "Colorado River Compact" that it was ratified by Arizona in 1944; and therefore, ratified by all Basin States.
Glossary – 4	Reclamation should add a definition of water "conservation."
Glossary – 4	Reclamation should clarify the definition of "Consumptive Use." Reclamation should also clarify its use of the word "deplete" and

	how it differs from "diversions" used elsewhere in the definition. Last, Reclamation should clarify how evaporation, seepage, and transit losses exist relative to "consumptive use" as they also "lessen[] the amount of water available for another use" as stated in the definition.
Glossary – 5	Reclamation should clarify the definition of "deplete(ion)" and how it differs from "consumptive use," "diversion," and "losses."
Glossary – 5	Reclamation should clarify the definition of "diversion(s)," which is currently confined to the "mainstream," a term defined in the Consolidated Decree.
Glossary – 5	Reclamation should add a definition of "efficiency" and how it differs from "augmentation" and "conservation."
Glossary – 5	Reclamation should add a definition of "effective storage/elevation" and how it relates to determination of mainstream shortage.
Glossary – 6	Reclamation should add a definition of "exchange" in the Lower Basin and its relation to relevant aspects of the Law of the River including the Consolidated Decree.
Glossary – 6	To the extent the alternatives rely on continuing ICS or expanding upon ICS, Reclamation should clarify the details of "Extraordinary Conservation" ICS.
Glossary – 7	Reclamation should add a definition of "full operating range(s)" for Lake Powell and Lake Mead and how this relates to "minimum power pool" and "dead pool."
Glossary – 8	Reclamation should clarify whether or how "Imported" ICS differs from "augmentation" as defined in § 603(g) of the 1968 Act.
Glossary -8	Reclamation should revise its definition of "Law of the River." The "Law of the River" refers to the body of law affecting interstate and international use, management, and allocation of water in the Colorado River System, including the 1922 Colorado River Compact, the 1944 Mexican Water Treaty, the 1948 Upper

	Colorado River Basin Compact, United States Supreme Court decisions and the United States Supreme Court Decree in *Arizona v. California*, and numerous federal statutes and agreements. The Law of the River does not authorize the Secretary to regulate the use and management of the Colorado River among the seven Basin States and Mexico.
Glossary - 9	Reclamation should add a definition of "losse(s)" and how it differs from "deplete(ion)."
Glossary – 9	Reclamation should revise "Lower Basin (States)" to be consistent with the 1922 Compact.
Glossary – 10	Reclamation should add a definition of "National Critical Infrastructure" and explain the legal significance, if any, of this designation.
Glossary – 10	Reclamation should add a definition of "Lower Basin user" as and how it differs from a "contractor," "present perfected right" holder and "entitlement holder."
Glossary – 10	Reclamation should clarify whether the definition of "Natural Flow" includes depletions due to evaporation, seepage, and transit losses.
Glossary – 11	Reclamation should clarify what "non-system water" relates to.
Glossary – 13	Reclamation should clarify the definition of "return flow" and how it relates to "depletion," "diversion," and "consumptive use."
Glossary – 13	Reclamation should clarify definition of "Return Flow Credit" consistent with the revised definition of Return Flow.
Glossary – 14	Reclamation should clarify that a "Shortage condition" as defined here only applies to the Colorado River mainstream as defined in the Consolidated Decree, Art. II(B)(3) and is separate and distinct from a deficiency under the 1922 Compact, Art. III(c).
Glossary – 15	Reclamation should clarify that a "Surplus condition" as defined here only applies to the Colorado River mainstream as defined in

	the Consolidated Decree, Art. II(B)(2) and is separate and distinct from a surplus under the 1922 Compact.
Glossary – 15	Reclamation should clarify the mechanism of creation for "System Efficiency" ICS.
Glossary – 15	Reclamation should clarify the meaning of "system storage." Reclamation uses the term "Colorado River Basin," which itself requires additional clarification as noted above as being overly broad and beyond the geographic scope of this analysis. It is not clear whether Reclamation is referring to both surface and groundwater or what "available" means.
Glossary – 15	Reclamation should clarify the meaning of "system water" to make it consistent with 1922 Compact and the other terms using the word "system" such as "non-system water," "system storage," and "system conservation."
Glossary – 16	Reclamation should clarify the meaning of "tributary" to ensure that it is consistent with 1922 Compact, which does not use the word "flowing" but rather the phrase "naturally drains into."
Glossary – 16	Reclamation should revise its definition of "Upper Basin (States)" to be consistent with the 1922 Compact.
Glossary – 16	Reclamation must revise its definition of "Upper Colorado River Commission" to match the purpose and scope of authority as set forth in the 1948 Compact.
Glossary – 16	Reclamation should add a definition for "Upper Basin users."
A-14	Reclamation indicates that the Lake Powell modeling includes assumptions for the storage and delivery of conserved system and non-system water. Reclamation should clearly and separately explain what assumptions are made with respect to non-system water and identify the source thereof.
A-31	Reclamation indicates that the Lake Mead modeling includes assumptions for the conservation, storage, and delivery of conserved system and non-system water. Like with Lake Powell

	modeling, Reclamation should clearly and separately explain what assumptions are made with respect to non-system water and identify the source thereof.
B-1 - 2	Reclamation should provide greater explanation of the mechanisms contemplated with respect to Lake Powell and Lake Mead Storage and Delivery of Conserved Water and their impacts on major operational determinations. As a result, Reclamation must clarify how losses will be assessed against the banked water, and how those without bank accounts will be impacted.
B-1	Reclamation should clarify what it means by: "Conservation mechanism that offer water users flexibility to conserve and/or augment water supplies can increase stability of reservoirs, thereby reducing the need for and mitigating impacts of large shortages." This description is vague and specifically, the words and terms "conservation" and "conserve;" "augment"; "increase stability of reservoirs"; and "reducing the need for… shortages" and "mitigating impacts of shortage" require discrete definitions and meaningful explanation.
B-2 - 3	Reclamation indicates that its modeling assumptions are not intended to constitute a position on the storage mechanisms by any specific water users nor are they an interpretation of the law, contracts or a legal position. To properly assess the reasonableness of alternatives, it is necessary to consider whether the alternatives' components are consistent with exiting law, and if not, to consider what changes to the existing law are necessary to implement such components. This is also necessary to put the DMDU's results into context. Because the modeling assumptions will affect the outcome of the DMDU's analysis, an alternative may perform favorably in the DMDU framework, but still be inviable because it is legally speculative.
B-4	Reclamation's table B-1 must show the total accumulated volume of all types of ICS (including System Efficiency ICS) to make clear how much water is currently banked and owed back to users as an initial condition.

B-5	Reclamation indicates that when storage credits are created, the model assumes either a delivery from Lake Mead is decreased or a new gain in the system is introduced. Reclamation should clarify the meaning and circumstances under which a new gain in the system is introduced including the source of the new gain.
B-6	Reclamation includes assumptions for Nevada's Tributary Conservation, however it is unclear how this mechanism functions.
C-11	Reclamation's discussion of allocation of mainstream shortage must recognize that this is a separate and distinct legal inquiry from a "deficiency" under the Colorado River Compact. Reclamation should describe the law as written.
Appendix D	Reclamation's analysis cannot overlook or combine Mexico's apportionment with the Lower Basin's for the purposes of determining percentage flow. Reclamation should describe the law as written or make clear that its statements reflect Reclamation's legal interpretation of the Law of the River.
D-1	Reclamation uses three percentages for assumed natural flow: 60%, 65%, and 70%. It is unclear why Reclamation selected these percentages for analysis.
G -1 – 2	Reclamation should update the inputs for the low initial condition in Table G-1 because the current inputs do not adequately bookend possible conditions at the end-of-month December 2026.
I-1	Reclamation includes analysis in Appendix I that considers what would happen if the Upper Basin's annual consumptive use were capped at certain levels. Reclamation indicates that the purpose of this analysis is to more transparently examine how combinations of supply, demand, and initial conditions affect system vulnerability. Reclamation should provide additional explanation with regard to its reasoning behind this analysis given its inconsistency with the 1922 Compact and 1948 Compact, and exceedance of the limits of the Secretary's authority and selected scope of the federal action.
I- 1	Reclamation states that the baseline for Lower Basin demand is full apportionment, which is "largely met through deliveries from Lake Mead (as adjusted for tributary inflows and losses below

	Lake Mead).” Reclamation should provide further explanation relative to the adjustment for tributary inflows and losses below Lake Mead.
J-4 - 5	Reclamation should incorporate the recent 19-year critical period of record results in the DEIS.
K-1	Reclamation omits reference to the 1922 Compact, which governs how the Mexico treaty obligation will be met among the Upper and Lower Basins. Reclamation must clarify that its modeling assumptions for water deliveries to Mexico are also contingent upon application of, and are not intended to constitute an interpretation of, the 1922 Compact.
N-1	Reclamation indicates that this appendix contains schedules of projected Colorado River system depletions by the Lower Division States. Use of “system” is misleading because it implies that it includes depletions from Lower Basin tributaries. However, such depletions are omitted. Reclamation should make clear the source of the depletions included, as well as those excluded, from its modeling. To the extent Reclamation intends to consider the “system,” it must consider depletions and from the Lower Basin tributaries.
TA 3, 3-4, n.1	Reclamation states that the Secretary will consider and prioritize operations at CRSP Upstream Initial Units that are consistent with existing Records of Decision, but that the Secretary retains the authority to operate outside those Records of Decision if necessary. It’s unclear what authority this refers to. Reclamation should identify any such authority for the Secretary to operate outside of the Records of Decision.
TA 3, 3-5	Reclamation quotes a single provision from LROC, that the objective shall be to maintain a minimum release of water from Lake Powell of 8.23 maf for that year. The selective reference misrepresents LROC and ignores the other requirements in LROC, including section II(1) for the Secretary to make determinations on necessary “602(a) Storage” and the conditions to be considered under section II(2). Reclamation should accurately include all other relevant LROC provisions.
TA 3, 3-5	In describing when more than 8.23 maf could be released from Lake Powell under LROC, Reclamation omits the

	requirement that such releases be made to the extent they can be reasonably applied in the States of the Lower Division to the uses specified in Article III(e) of the Colorado River Compact. Reclamation should faithfully include all requirements under section III(3) of LROC.
TA 3, 3-15	Reclamation states that the Compact apportioned 7.5 maf of water per year for beneficial consumptive use to the Lower Basin states. Reclamation should also reference the additional 1.0 maf of water per year from the Colorado River System apportioned to the Lower Basin under Article III(b) of the Compact.
TA 3, 3-51	Reclamation states that the CRSP Upstream Initial Unit reservoirs can be operated in a way that releases help to bolster elevations in Lake Powell and protect Glen Canyon Dam infrastructure (within their Records of Decision). Reclamation should describe the authorities to (a) include operations above Lake Powell in this statement; (b) for the release of this water absent agreement with the Upper Division States; and (c) how these operations would be consistent with the applicable Records of Decision that are not also part of this NEPA process.
TA 4, 4-1	Reclamation lists the "most notable" documents that comprise the Law of the River. Reclamation should modify this list to also include the 1948 Compact and the 1956 Act.
TA 4, 4-2	Reclamation states that the 1922 Compact apportions 7.5 maf of water per year to the Upper Basin and 7.5 maf to the Lower Basin. Reclamation should also reference the additional 1.0 maf of water per year from the Colorado River System apportioned to the Lower Basin under Article III(b) of the Compact.
TA 4, 4-2	In describing Table TA 4-2, Reclamation states that water apportionments to the Lower Division States were established by the 1928 Act. Reclamation should revise this statement to clarify that the apportionments to the Lower Division States described in that table are for water from the Colorado River mainstream downstream from Lake Mead.

TA 4, 4-3	Reclamation states that rights to use Colorado River water within the Lower Division States, known as entitlements, are established in accordance with the 1928 Act and the Consolidated Decree and that all the water apportioned to the Lower Division States is allocated in accordance with these documents. Reclamation must revise these statements to clarify that they apply only to Colorado River mainstream water downstream from Lake Mead.
TA 4, 4-3	Reclamation states that any user of Colorado River water in the Lower Basin is required to have a contract with the Secretary. Reclamation should revise this statement to clarify that it applies to any user of Colorado River mainstream water in the Lower Basin downstream from Lake Mead.
TA 18-3	Reclamation lists the Navajo Nation as an "Upper Basin reservation" and the Hopi Tribe as a "Lower Basin reservation." This is confusing because the Hopi Reservation is contained entirely within the boundaries of the Navajo Reservation, and the Navajo Reservation resides within both the Upper Basin and the Lower Basin. On pages TA 18-4 and 18-6, it appears that the distinction is based on quantified rights. Reclamation should clarify this distinction and if the tribes are being treated differently based on that distinction.
TA 3, 3-4, n.1	Reclamation states that the Secretary will consider and prioritize operations at CRSP Upstream Initial Units that are consistent with existing Records of Decision, but that the Secretary retains the authority to operate outside those Records of Decision if necessary. It's unclear what authority allows Reclamation to include CRSP Upstream Initial Unit operations in this NEPA process or to operate "outside the [Records of Decision]." Reclamation should identify any such authority to the extent it exists.
TA 3, 3-5	Reclamation quotes a single provision from LROC, that the objective shall be to maintain a minimum release of water from Lake Powell of 8.23 maf for that year. This single selective reference misrepresents LROC and ignores the other requirements in LROC, including section II(1) for the Secretary to make determinations on necessary "602(a) Storage" and the

	conditions to be considered under section II(2). Reclamation should accurately state all other relevant LROC provisions.
TA 3, 3-5	In describing when more than 8.23 maf could be released from Lake Powell under LROC, Reclamation omits the requirement that such releases be made to the extent they can be reasonably applied in the States of the Lower Division to the uses specified in Article III(e) of the Colorado River Compact. Reclamation should accurately state all requirements under section III(3) of LROC.

Rebecca Mitchell

Becky Mitchell
Governor's Representative
Colorado Commissioner
Upper Colorado River Commission
303-866-3441 x3217
rebecca.mitchell@state.co.us

Lauren Ris
Director
Colorado Water Conservation Board
303-818-4602
lauren.ris@state.co.us