



— BUREAU OF —  
RECLAMATION

# DRAFT 2025 Annual Operating Plan for Colorado River Reservoirs

This draft document of the 2025 AOP is based upon the post-fourth consultation draft 2024 AOP. Edits, **in red**, indicate changes from the post-fourth consultation draft 2024 AOP. Operations in 2024 that have already been finalized will not appear in red.

Hydrologic projections in this draft document of the 2025 AOP are based on the **May** 2024 24-Month Study. Subsequent drafts will be updated with contemporary projections of hydrology.

Text and values **highlighted in blue** are provisional and subject to change.

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17

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# 1 INTRODUCTION

## 2 Background

3 Each year's Annual Operating Plan (AOP) for Colorado River Reservoirs reports both on the  
4 past operations of the Colorado River reservoirs for the completed year and projected  
5 operations and releases from these reservoirs for the current (i.e., upcoming) year. Accordingly,  
6 this 2025 AOP reports on 2024 operations as well as projected operations for 2025. In recent  
7 years, additions to the Law of the River such as operational rules, guidelines, and decisions  
8 have been put into place for Colorado River reservoirs including the 1996 Glen Canyon Dam  
9 Record of Decision<sup>1</sup> (ROD), the Operating Criteria for Glen Canyon Dam,<sup>2</sup> the 1999 Off-  
10 stream Storage of Colorado River Water Rule (43 Code of Federal Regulations [CFR] Part  
11 414),<sup>3</sup> the 2001 Interim Surplus Guidelines<sup>4</sup> addressing operation of Hoover Dam, the 2006  
12 Flaming Gorge Dam ROD,<sup>5</sup> the 2006 Navajo Dam ROD<sup>6</sup> to implement recommended flows  
13 for endangered fish, the 2007 Interim Guidelines for the operations of Lake Powell and Lake  
14 Mead,<sup>7</sup> the 2012 Aspinall ROD,<sup>8</sup> the 2016 Glen Canyon Dam Long-Term Experimental and  
15 Management Plan (LTEMP) ROD,<sup>9</sup> Minutes No. 323 and 330 between the United States and  
16 Mexican Sections of the International Boundary and Water Commission (IBWC),<sup>10, 11</sup> the  
17 agreements related to the 2019 Colorado River Drought Contingency Plans (DCPs)<sup>12</sup> as

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<sup>1</sup> ROD for the Operation of Glen Canyon Dam, October 9, 1996. Available online at:  
[https://www.usbr.gov/uc/envdocs/rod/Oct1996\\_OperationGCD\\_ROD.pdf](https://www.usbr.gov/uc/envdocs/rod/Oct1996_OperationGCD_ROD.pdf).

<sup>2</sup> Following the implementation of the LTEMP ROD, the Glen Canyon Dam operating criteria were revised and available online at: <https://www.usbr.gov/uc/water/crsp/studies/GCOC.pdf>.

<sup>3</sup> Off-stream Storage of Colorado River Water; Development and Release of Intentionally Created Unused Apportionment in the Lower Division States: Final Rule (43 CFR Part 414; 64 *Federal Register* 59006, November 1, 1999). Available online at: <https://www.usbr.gov/lc/region/g4000/contracts/FinalRule43cfr414.pdf>.

<sup>4</sup> ROD for the Colorado River Interim Surplus Guidelines, January 16, 2001 (67 *Federal Register* 7772, January 25, 2001). Available online at: [https://www.usbr.gov/lc/region/g4000/surplus/surplus\\_rod\\_final.pdf](https://www.usbr.gov/lc/region/g4000/surplus/surplus_rod_final.pdf).

<sup>5</sup> ROD for the Operation of Flaming Gorge Dam, February 16, 2006. Available online at:  
<https://www.usbr.gov/uc/envdocs/rod/fgFEIS/final-ROD-15feb06.pdf>.

<sup>6</sup> ROD for Navajo Reservoir Operations, Navajo Unit – San Juan River, New Mexico, Colorado, Utah, July 31, 2006. Available online at: <https://www.usbr.gov/uc/envdocs/eis/navajo/pdfs/NavWaterOpsROD2006.pdf>.

<sup>7</sup> ROD for Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations for Lake Powell and Lake Mead (73 *Federal Register* 19873, April 11, 2008). The ROD adopting the 2007 Interim Guidelines was signed by the Secretary on December 13, 2007. Available online at:  
<https://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf>.

<sup>8</sup> ROD for the Aspinall Unit Operations, Final Environmental Impact Statement, April 2012. Available online at:  
<https://www.usbr.gov/uc/envdocs/eis/AspinallEIS/ROD.pdf>.

<sup>9</sup> ROD for the Glen Canyon Dam Long-Term Experimental and Management Plan Final Environmental Impact Statement, December 2016. Available online at: [http://ltempeis.anl.gov/documents/docs/LTEMP\\_ROD.pdf](http://ltempeis.anl.gov/documents/docs/LTEMP_ROD.pdf).

<sup>10</sup> IBWC Minute No. 323, Extension of Cooperative Measures and Adoption of a Binational Water Scarcity Contingency Plan in the Colorado River Basin dated September 21, 2017. Available online at:  
<https://www.ibwc.gov/wp-content/uploads/2023/03/Min323.pdf>.

<sup>11</sup> IBWC Minute No. 330, Expansion of Colorado River Temporary Measures dated March 21, 2024. Available online at: <https://www.ibwc.gov/wp-content/uploads/2024/04/Minute-330-English-Spanish-Version-Signed-Clean.pdf>.

<sup>12</sup> The agreements related to the 2019 Colorado River DCPs, as authorized by Public Law 116-14, were executed on May 20, 2019, and consist of an Upper Basin DCP (Drought Response Operations and Demand Management Storage) and a Lower Basin DCP including Lower Basin Drought Operations. Available online at:  
<https://www.usbr.gov/dcp/finaldocs.html>.

1 authorized by Public Law 116-14,<sup>13</sup> and the 2024 Supplemental Environmental Impact  
2 Statement (SEIS) for Near-term Colorado River Operations ROD (2024 Interim Guidelines  
3 SEIS ROD).<sup>14</sup> Each AOP incorporates these and other rules, guidelines, and decisions, and  
4 reports on how the criteria contained in the applicable decision document or documents are  
5 implemented. Thus, the AOP makes projections and reports on how the Bureau of Reclamation  
6 (Reclamation) will implement these decisions in response to changing water supply conditions  
7 as they unfold during the upcoming year, when conditions become known. Congress has  
8 charged the Secretary of the Interior (Secretary) with stewardship and responsibility for a wide  
9 range of natural, cultural, recreational, and tribal resources within the Colorado River Basin.  
10 The Secretary has the authority to operate and maintain Reclamation facilities within the  
11 Colorado River Basin addressed in this AOP to help manage these resources and accomplish  
12 their protection and enhancement in a manner fully consistent with applicable provisions of  
13 Federal law including the Law of the River, applicable provisions of State law, and other  
14 project-specific operational limitations.

15  
16 The Secretary recognized in the 2007 Interim Guidelines that the AOP provides an integrated  
17 report on reservoir operations affected by numerous federal policies: *"The AOP is used to*  
18 *memorialize operational decisions that are made pursuant to individual federal actions (e.g.,*  
19 *ISG [the 2001 Interim Surplus Guidelines], 1996 Glen Canyon Dam ROD, this [2007 Interim*  
20 *Guidelines] ROD). Thus, the AOP serves as a single, integrated reference document required*  
21 *by section 602(b) of the CRBPA of 1968 [Colorado River Basin Project Act of September 30,*  
22 *1968 (Public Law 90-537)]<sup>15</sup> regarding past and anticipated operations."*

## 23 Authority

24 This 2025 AOP was developed in accordance with the processes set forth in: Section 602 of the  
25 CRBPA; the Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs  
26 Pursuant to the Colorado River Basin Project Act of September 30, 1968 (Public Law 90-537)  
27 (Operating Criteria), as amended, promulgated by the Secretary;<sup>16</sup> and Section 1804(c)(3) of  
28 the Grand Canyon Protection Act of 1992 (Public Law 102-575).<sup>17</sup>

29  
30 Section 602(b) of the CRBPA requires the Secretary to prepare and *"transmit to the Congress*  
31 *and to the Governors of the Colorado River Basin States a report describing the actual*  
32 *operation under the adopted criteria [i.e., the Operating Criteria] for the preceding compact*  
33 *water year and the projected operation for the current year."*

34  
35 This AOP has been developed consistent with: the Operating Criteria; applicable Federal laws;  
36 the Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, the Treaty  
37 Between the United States of America and Mexico, signed February 3, 1944 (1944 United

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<sup>13</sup> The Colorado River Drought Contingency Plan Authorization Act (Public Law 116-14) was signed into law on April 16, 2019. Available online at: <https://www.congress.gov/116/bills/hr2030/BILLS-116hr2030enr.pdf>.

<sup>14</sup> 2024 Interim Guidelines SEIS ROD is available online at: [https://www.usbr.gov/ColoradoRiverBasin/documents/NearTermColoradoRiverOperations/20240507-Near-termColoradoRiverOperations-SEIS-RecordofDecision-signed\\_508.pdf](https://www.usbr.gov/ColoradoRiverBasin/documents/NearTermColoradoRiverOperations/20240507-Near-termColoradoRiverOperations-SEIS-RecordofDecision-signed_508.pdf).

<sup>15</sup> Available online at: <https://www.usbr.gov/lc/region/pao/pdffiles/crbproj.pdf>.

<sup>16</sup> Available online at: <https://www.usbr.gov/lc/region/g4000/lroc/frmar2905.pdf>.

<sup>17</sup> Available online at: <https://www.usbr.gov/uc/legal/gcpa1992.pdf>.

1 States-Mexico Water Treaty);<sup>18</sup> interstate compacts; court decrees; the Colorado River Water  
2 Delivery Agreement;<sup>19</sup> the 2007 Interim Guidelines; the 2019 Colorado River DCP agreements;  
3 the 2024 Interim Guidelines SEIS ROD; and other documents relating to the use of the waters  
4 of the Colorado River, which are commonly and collectively known as the Law of the River.  
5

6 The 2025 AOP was prepared by Reclamation on behalf of the Secretary, working with other  
7 Interior agencies and the Western Area Power Administration (WAPA). Reclamation consulted  
8 with the seven Colorado River Basin States Governors’ representatives, representatives from  
9 Mexico, the Upper Colorado River Commission (UCRC), Native American tribes, other  
10 appropriate Federal agencies, representatives of academic and scientific communities,  
11 environmental organizations, representatives of the recreation industry, water delivery  
12 contractors, contractors for the purchase of Federal power, others interested in Colorado River  
13 operations, and the general public through the Colorado River Management Work Group.  
14

15 Article I(2) of the Operating Criteria allows for revision of the projected plan of operation to  
16 reflect current hydrologic conditions with notification to the Congress and the Governors of the  
17 Colorado River Basin States of any changes by June of each year. The process for revision of  
18 the AOP is further described in Section 7.C of the 2007 Interim Guidelines. Any revision to the  
19 final AOP may occur only through the AOP consultation process as required by applicable  
20 Federal law.

## 21 **Purpose**

22 The purpose of the AOP is to report on the past year’s operations and illustrate the potential  
23 range of reservoir operations that might be expected in the upcoming year, and to determine or  
24 address: (1) the quantity of water considered necessary to be in storage in the Upper Basin  
25 reservoirs as of September 30, 2025, pursuant to Section 602(a) of the CRBPA; (2) water  
26 available for delivery pursuant to the 1944 United States-Mexico Water Treaty and Minutes  
27 No. 242,<sup>20</sup> 323, 327,<sup>21</sup> and 330 of the IBWC; (3) whether the reasonable consumptive use  
28 requirements of mainstream users in the Lower Division States will be met under a “Normal,”  
29 “Surplus,” or “Shortage” Condition as outlined in Article III of the Operating Criteria and as  
30 implemented by the 2007 Interim Guidelines; (4) whether management and/or operational  
31 regimes will be required or considered as described in the 2019 Colorado River DCPs; (5)  
32 whether management and/or operations will be required or considered as described in the 2024  
33 Interim Guidelines SEIS ROD; and (6) whether water apportioned to, but unused by one or  
34 more Lower Division States, exists and can be used to satisfy beneficial consumptive use  
35 requests of mainstream users in other Lower Division States as provided in the Consolidated

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<sup>18</sup> Available online at: <https://www.ibwc.gov/wp-content/uploads/2022/11/1944Treaty.pdf>.

<sup>19</sup> Colorado River Water Delivery Agreement: Federal Quantification Settlement Agreement for Purposes of Section 5(B) of Interim Surplus Guidelines, October 10, 2003 (69 *Federal Register* 12202, March 15, 2004). Available online at: <https://www.usbr.gov/lc/region/g4000/crwda/crwda.pdf>.

<sup>20</sup> IBWC Minute No. 242, Permanent and Definitive Solution to the International Problem of the Salinity of the Colorado River dated August 30, 1973. Available online at: <https://www.ibwc.gov/wp-content/uploads/2023/05/Min242.pdf>.

<sup>21</sup> IBWC Minute No. 327, Emergency Deliveries of Colorado River Waters for use in the city of Tijuana, Baja California dated January 28, 2022. Available online at: <https://www.ibwc.gov/wp-content/uploads/2022/11/Min327.pdf>



1 Decree of the Supreme Court of the United States in *Arizona v. California*, 547 U.S. 150 (2006)  
2 (Consolidated Decree).<sup>22</sup>

3  
4 Consistent with the above determinations and in accordance with other applicable provisions of  
5 the Law of the River, the AOP was developed with “appropriate consideration of the uses of  
6 the reservoirs for all purposes, including flood control, river regulation, beneficial consumptive  
7 uses, power production, water quality control, recreation, enhancement of fish and wildlife, and  
8 other environmental factors” (Operating Criteria, Article I(2)).  
9

10 Since the hydrologic conditions of the Colorado River Basin can never be completely known in  
11 advance, the AOP presents projected operations resulting from three different hydrologic  
12 scenarios: the minimum probable, most probable, and maximum probable reservoir inflow  
13 conditions. Projected reservoir operations are modified during the water year as runoff  
14 forecasts are adjusted to reflect existing snowpack, basin storage, flow conditions, and as  
15 changes occur in projected water deliveries.

## 16 **Summary of Projected 2025 Operations**

17 **Upper Basin.** Taking into account (1) the existing water storage conditions in the basin, (2) the  
18 August 2024 24-Month Study<sup>23</sup> projection of the most probable near-term water supply  
19 conditions in the basin, and (3) **Section 6.C.1 of the 2007 Interim Guidelines and Section 6.E.**  
20 **of the 2024 Interim Guidelines SEIS ROD, the Mid-Elevation Release Tier will govern the**  
21 **operation of Lake Powell for water year 2025.** The August 2024 24-Month Study of the most  
22 probable inflow scenario projects the water year 2025 release from Glen Canyon Dam **to be**  
23 **7.48 million acre-feet (maf) (9,230 million cubic meters [mcm]).** ~~In addition, Section 6.E of the~~  
24 ~~2007 Interim Guidelines as amended in the 2024 Interim Guidelines SEIS ROD may also~~  
25 ~~govern the operation of Lake Powell for water year 2025.~~  
26

27 Reclamation will continue to monitor hydrologic and operational conditions and assess the  
28 need for additional responsive actions and changes to operations. Reclamation will continue to  
29 consult with the Basin States, Basin Tribes, the Republic of Mexico, and other partners on  
30 Colorado River operations to consider future protective measures for both Lake Powell and  
31 Lake Mead.  
32

33 For further information about the variability of projected inflow into Lake Powell, see the 2025  
34 Water Supply Assumptions section and the Lake Powell section within the Summary of  
35 Reservoir Operations in 2024 and Projected 2025 Reservoir Operations, and Tables 3 and 4.  
36

37 **Lower Basin.** Taking into account (1) the existing water storage conditions in the basin,  
38 (2) the most probable near-term water supply conditions in the basin, and (3) **Section 2.D.1 of**  
39 **the 2007 Interim Guidelines, a Shortage Condition, consistent with Section 2.D.1.a, will govern**  
40 **the operation of Lake Mead for calendar year 2025** in accordance with Article III(3)(c) of the

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<sup>22</sup> Available online at: <https://www.usbr.gov/lc/region/pao/pdf/files/scconsolidateddecree2006.pdf>.

<sup>23</sup> The 24-Month Study refers to the operational study conducted by Reclamation to project future reservoir operations. The most recent 24-Month Study report is available on Reclamation’s Water Operations websites and is updated each month. Available online at: <https://www.usbr.gov/uc/water/crsp/studies/index.html> and <https://www.usbr.gov/lc/region/g4000/24mo/index.html>.

1 Operating Criteria and Article II(B)(3) of the Consolidated Decree. In addition, the Lower  
2 Basin Drought Contingency Plan Agreement (LB DCP Agreement) will also govern the  
3 operation of Lake Mead for calendar year 2025. Consistent with Sections III.B.1.a and III.B.2.a  
4 of Exhibit 1 to the LB DCP Agreement, DCP contributions will be required by Arizona and  
5 Nevada, respectively, in calendar year 2025. Creation and/or delivery of Intentionally Created  
6 Surplus (ICS) may be made consistent with Section 3 of the 2007 Interim Guidelines and  
7 Sections III and IV of Exhibit 1 to the LB DCP Agreement, as applicable. In calendar year  
8 2025, reservoir protection conservation will be implemented consistent with Section 2.E of the  
9 2007 Interim Guidelines as amended in the SEIS ROD.

10  
11 No unused apportionment for calendar year 2025 is anticipated. If any unused apportionment  
12 becomes available after adoption of this AOP, Reclamation, on behalf of the Secretary, may  
13 allocate any such available unused apportionment for calendar year 2025. Any such allocation  
14 shall be made in accordance with Article II(B)(6) of the Consolidated Decree, the Lower  
15 Colorado Region Policy for Apportioned but Unused Water (Unused Water Policy),<sup>24</sup> and  
16 giving further consideration to the water conservation objectives of the July 30, 2014  
17 agreement for a pilot system conservation program (PSCP),<sup>25</sup> the Lower Colorado River Basin  
18 System Conservation and Efficiency Program (LC Conservation Program),<sup>26</sup> and as specified  
19 in Section 4.b of the LB DCP Agreement.

20  
21 In calendar year 2025, Colorado River water may be stored off-stream pursuant to individual  
22 Storage and Interstate Release Agreements (SIRAs) and 43 CFR Part 414 within the Lower  
23 Division States. The Secretary shall make Intentionally Created Unused Apportionment  
24 (ICUA) available to contractors in Arizona, California, or Nevada pursuant to individual SIRAs  
25 and 43 CFR Part 414.

26  
27 The Inadvertent Overrun and Payback Policy (IOPP),<sup>27</sup> which became effective January 1,  
28 2004, will not be in effect during calendar year 2025 because overruns are not permitted in a  
29 Shortage Condition. In accordance with Section 2.6.e of the IOPP, further accumulation of  
30 inadvertent overruns in calendar year 2025 will be suspended.

31  
32 Conserved Colorado River water, created through the PSCP,<sup>28</sup> the LB DCP Agreement, the LC  
33 Conservation Program, and other voluntary agreements, is anticipated to be added to Lower  
34 Basin reservoirs pursuant to system conservation agreements in the Lower Basin in calendar  
35 year 2025.

36  

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<sup>24</sup> Lower Colorado Region Policy for Apportioned but Unused Water, February 11, 2010. Available online at:  
<https://www.usbr.gov/lc/region/g4000/UnusedWaterPolicy.pdf>.

<sup>25</sup> Available online at:  
<https://www.usbr.gov/lc/region/programs/PilotSysConsProg/PilotSCPFundingAgreement7-30-2014.pdf>.

<sup>26</sup> More information on the LC Conservation Program: <https://www.usbr.gov/lc/LCBCConservation.html>.

<sup>27</sup> ROD for Implementation Agreement, Inadvertent Overrun and Payback Policy, and Related Federal Actions, Final Environmental Impact Statement, October 10, 2003 (69 *Federal Register* 12202, March 15, 2004). Available online at: [https://www.usbr.gov/lc/region/g4000/crwd/crwd\\_rod.pdf](https://www.usbr.gov/lc/region/g4000/crwd/crwd_rod.pdf).

<sup>28</sup> More information about the PSCP in the Lower Basin can be found at:  
<https://www.usbr.gov/lc/region/programs/PilotSysConsProg/pilotsystem.html>.



1 The 2007 Interim Guidelines adopted the ICS mechanism, which was expanded upon in the LB  
2 DCP Agreement, that among other things encourages the efficient use and management of  
3 Colorado River water in the Lower Basin. ICS may be created and delivered in calendar year  
4 2025 pursuant to the 2007 Interim Guidelines, the LB DCP Agreement, and applicable  
5 forbearance and delivery agreements, and consistent with approved ICS plans of creation.

6  
7 Consistent with Section 4 of the 2007 Interim Guidelines, Developed Shortage Supply (DSS)  
8 may be created and delivered in calendar year 2025.

9  
10 **1944 United States-Mexico Water Treaty.** A volume of 1,450 maf (1,790 mcm) of water will  
11 be available to be scheduled for delivery to Mexico during calendar year 2025 in accordance  
12 with Article 15 of the 1944 United States-Mexico Water Treaty, IBWC Minutes No. 242 and  
13 327, and Section III.A of IBWC Minute No. 323. The volume delivered may also be adjusted  
14 for water savings contributions as required under Section IV of IBWC Minute No. 323 and  
15 system water and Mexico’s Water Reserve conservation as required under Resolutions 1 and 2  
16 of IBWC Minute No. 330. In accordance with IBWC Minute No. 323, Mexico may create  
17 water for or take delivery of water from Mexico’s Water Reserve pursuant to Section III.C and  
18 Section V of IBWC Minute No. 323 and Resolution 3 of IBWC Minute No. 330.

## 19 **BASINWIDE DROUGHT RESPONSE OPERATIONS**

20  
21  
22 The Colorado River Basin is experiencing a prolonged period of drought and record-low runoff  
23 conditions resulting in historically low reservoir levels at Lake Powell and Lake Mead. The  
24 period from 2000 through 2022 is the lowest 23-year inflow in the historic record and one of  
25 the lowest in the past 1,200 years.<sup>29</sup> As a result of the exceptionally low runoff conditions over  
26 the past three years (2020, 2021, and 2022), drought response operations have been triggered at  
27 Lake Powell and Lake Mead consistent with the 2007 Interim Guidelines, Minutes No. 323 and  
28 330, the 2019 Colorado River DCP agreements, and the 2024 Interim Guidelines SEIS ROD.

### 29 **Upper Basin Drought Response Operations Agreement (DROA)**

30 Reclamation staff have worked with the DROA<sup>30</sup> Parties to develop and implement the DROA  
31 Plans which include two components, (1) a Framework document, which will remain relatively  
32 static from year to year and contains provisions the DROA Parties will use to develop annual  
33 plans, and (2), attachments which are updated yearly that identify specific operations for each  
34 Initial Unit during the DROA operational year. A DROA year spans from May 1<sup>st</sup> through  
35 April 30<sup>th</sup>.<sup>31</sup>

36  
37 ~~In July of 2021, Reclamation initiated an emergency release in accordance with the DROA~~  
38 ~~after advance consultation and coordination with the Upper Division States, through the UCRC,~~  
39 ~~and following consultation with and supporting communication from the Governors’~~

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<sup>29</sup> Study on the tree-ring reconstruction record for the Upper Colorado River Basin is available online at:  
<https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2007GL029988>.

<sup>30</sup> Available online at: <https://www.usbr.gov/dcp/docs/final/Attachment-A1-Drought-Response%20Operations-Agreement-Final.pdf>.

<sup>31</sup> Information regarding DROA Plans and previous related actions can be found at the following link:  
<https://www.usbr.gov/ColoradoRiverBasin/dcp/droa.html>.

1 ~~Representatives of the Colorado River Basin States. Additional consultation occurred with~~  
2 ~~WAPA,<sup>32</sup> the National Park Service, and the U.S. Fish and Wildlife Service (USFWS). Under~~  
3 ~~the Emergency Action provision, Reclamation planned to release an additional total of 0.181~~  
4 ~~maf (223 mem) in calendar year 2021, from Flaming Gorge, Blue Mesa, and Navajo reservoirs.~~  
5 ~~Reclamation later modified that plan to release 0.161 maf (199 mem), based on increased risk~~  
6 ~~of not fully meeting contract deliveries from Navajo Reservoir in water year 2022.~~  
7

8 ~~In January of 2022, Reclamation initiated a second DROA action after advanced consultation~~  
9 ~~and coordination with the Upper Division States, through the UCRC, and following~~  
10 ~~consultation with the Governors' Representatives of the Colorado River Basin States. Pursuant~~  
11 ~~to DROA, the first drought response that is considered is the modification of monthly release~~  
12 ~~volumes from Lake Powell while maintaining the annual release volume pursuant to the 2007~~  
13 ~~Interim Guidelines. Reclamation modified Lake Powell release volumes by reducing the~~  
14 ~~monthly releases from January through April 2022, by a total volume of 0.350 maf (432 mem).~~  
15 ~~This volume was scheduled to be added back into releases scheduled for June through~~  
16 ~~September 2022; however, in May 2022, the Department of the Interior modified the annual~~  
17 ~~release volume from Lake Powell from 7.48 maf (9,230 mem) to 7.00 maf (8,630 mem), in~~  
18 ~~accordance with Sections 6 and 7.D of the 2007 Interim Guidelines.~~

## 19 **2022 DROA Plan**

20 ~~In April of 2022, the DROA parties finalized the 2022 Plan for DROA year 2022, which spans~~  
21 ~~May 2022 through April 2023.<sup>33</sup> The Secretary of the Interior through her designee approved~~  
22 ~~the 2022 Plan on April 29, 2022.<sup>34</sup> The 2022 DROA Plan summarized below included the~~  
23 ~~following key operational elements:~~  
24

- 25 ~~1. Drought Response Operations releases of approximately 0.500 maf (617 mem) from~~  
26 ~~Flaming Gorge Dam~~
- 27
- 28 ~~2. Possible Drought Response Operations releases from Blue Mesa Reservoir in Fall 2022~~  
29 ~~and Winter 2023, contingent upon available release volumes~~
- 30
- 31 ~~3. Possible Drought Response Operations releases from Navajo Reservoir in Fall 2022 or~~  
32 ~~Winter 2023, contingent upon available release volume~~
- 33
- 34 ~~4. Possible operational adjustments at Glen Canyon Dam in Winter 2023~~
- 35
- 36 ~~5. No anticipated recovery of DROA release volumes through the term of the 2022 Plan~~  
37

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<sup>32</sup> Per Interagency Agreement No. 19-WC-40-746, section 2.5, "Reclamation will ensure WAPA is given a meaningful opportunity to participate," including the opportunity to participate in the potential development of a drought response operations plan.

<sup>33</sup> Drought Response Operations Framework and Plan: <https://www.usbr.gov/uc/DocLibrary/Plans/20220420-2022DroughtResponseOperationsPlan-Signed-508-UCRO.pdf>.

<sup>34</sup> Department of Interior Approval Memo: <https://www.usbr.gov/uc/DocLibrary/Plans/20220429-2022DroughtResponseOperationsPlan-ApprovalMemo-508-DOI.pdf>.

1 Based upon the November 2022 24-Month Study, Powell elevations under the minimum,  
2 maximum and most probable scenarios were expected to decrease below the target elevation of  
3 3,525.00 feet (1,074.42 meters) beginning in March and April 2023, with the probabilistic  
4 range reaching levels 0.50 feet (0.15 meters) above minimum power pool 3,490.00 feet  
5 (1,063.75 meters) before rebounding above the target elevation in May 2023. Accordingly,  
6 Reclamation adjusted monthly release volume patterns for Glen Canyon Dam under the 2022  
7 Plan to hold back a total of 0.523 maf (645 mem) in Lake Powell from December 2022 through  
8 April 2023. The 0.523 maf (645 mem) was subsequently released from Glen Canyon Dam in  
9 May through September of 2023.

10  
11 Due to the improved hydrologic conditions in the Colorado River Basin, DROA releases from  
12 Flaming Gorge were suspended on March 6, 2023. At the time of the suspension, the total 2022  
13 DROA release from Flaming Gorge was 0.463 maf (571 mem) of the planned 0.500 maf (617  
14 mem). On March 16, 2023, Reclamation reduced releases from Flaming Gorge even further to  
15 initiate recovery of previous DROA releases. Reclamation continued recovery operations at  
16 Flaming Gorge through the end of DROA year 2022 and was able to successfully recover 0.135  
17 maf (167 mem) of DROA releases in March and April of 2023.<sup>35</sup>

## 18 **2022 Powell Release Reduction; Operational Neutrality and Protection of the** 19 **Glen Canyon Dam Facilities and Operations**

20 In light of the prolonged drought, low runoff conditions, and depleted storage at Lake Powell,  
21 the Department of the Interior, in consultation with the Basin States and others, implemented an  
22 action under Sections 6 and 7.D of the 2007 Interim Guidelines specifically reducing the Glen  
23 Canyon Dam annual release from 7.48 maf (9,230 mem) to 7.00 maf (8,630 mem) in water year  
24 2022 to protect critical water delivery and water management infrastructure at Glen Canyon  
25 Dam. This action, based on the May 3<sup>rd</sup> Letter, was undertaken in conjunction consultation with  
26 the Basin States and Basin Tribes. The separate but related 2022 DROA actions resulted in  
27 adding approximately one million additional acre-feet (1,230 mem) of storage, or 16.00 feet  
28 (4.88 meters) of pool elevation, by April 2023 in Lake Powell.

29  
30 Beginning with the April 2023 24-Month Study, Reclamation removed the operational  
31 neutrality, as defined in the May 2022 letter, of the 0.480 maf (592 mem) that was retained in  
32 Lake Powell under the May 2022 action,<sup>36</sup> such that balancing releases are based on the  
33 physical storages of Lake Powell and Lake Mead, but could be as low as 7.00 maf (8,630 mem)  
34 and as high as 9.50 maf (11,720 mem) consistent with the Interim Guidelines and to protect  
35 Lake Powell from declining below elevation 3,525.00 feet (1,074.42 meters) at the end of  
36 December 2023.

## 37 **2023 DROA Plan**

38 On May 26, 2023, the DROA Parties, including Reclamation, agreed to the 2023 Plan. The  
39 2023 Plan ~~reflected~~reflects the impact of much above average Colorado River inflows in water

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<sup>35</sup> For more information regarding DROA accounting, which includes updates to monthly release and recovery volumes, visit the summary available online at: <https://www.usbr.gov/dcp/DROSummarySheet.pdf>

<sup>36</sup> For more information: <https://www.usbr.gov/uc/DocLibrary/Plans/20220503-2022DROA-GlenCanyonDamOperationsDecisionLetter-508-DOI.pdf>.

1 year 2023 and ~~does-did~~ not include any DROA releases, but rather ~~provides-provided~~ for  
2 recovery of prior DROA releases from the units upstream of Powell.<sup>37</sup> The Secretary of the  
3 Interior through her designee approved the 2023 Plan, as summarized in the following key  
4 operational elements:

- 5 • Anticipate full recovery of DROA release volumes at Flaming Gorge and Blue Mesa  
6 through the term of the 2023 Plan.<sup>35</sup>
- 7 • No additional action is anticipated during the 2023 Plan; the DROA Parties will  
8 continue to monitor hydrological conditions and, if needed, will make adjustments at  
9 Glen Canyon Dam, and then the upstream initial units (Flaming Gorge, Aspinall, and  
10 Navajo).

11  
12 Recovery of Blue Mesa and Flaming Gorge was completed on December 29, 2023, and  
13 February 28, 2024, respectively. Accounting and recovery of DROA releases from Flaming  
14 Gorge and Blue Mesa were completed in accordance with the definitions and processes  
15 outlined in Section 6 of the 2023 Plan.<sup>3738</sup>

## 16 **2024 Interim Guidelines SEIS**

17 As directed by the Secretary, on November 17, 2022, Reclamation published a Federal Register  
18 Notice indicating its intent to prepare a SEIS.<sup>39</sup> The purpose of the SEIS is to supplement the  
19 Environmental Impact Statement completed in 2007 for the 2007 Interim Guidelines in order to  
20 modify operating guidelines for the operation of Glen Canyon and Hoover Dam to address the  
21 historic drought and low runoff conditions in the Colorado River Basin through 2026. The need  
22 for the revised operating guidelines is based on the potential that continued low runoff  
23 conditions in the Colorado River Basin could lead to critically low reservoir conditions at Lake  
24 Powell and Lake Mead that impact both water delivery and hydropower operations from 2023  
25 through 2026.

26  
27 Reclamation published the draft SEIS on April 14, 2023. The 45-day public commenting period  
28 was scheduled to end on May 30, 2023; however, an additional action alternative was  
29 submitted to Reclamation for consideration prior to the closing date by the Lower Division  
30 States.<sup>40</sup> With the submission of this proposed alternative, Reclamation withdrew the draft  
31 SEIS on May 22, 2023. On October 27, 2023, Reclamation published a revised draft SEIS  
32 which included an analysis of the effects of the proposal under the National Environmental  
33 Policy Act (NEPA). Reclamation continued with the NEPA process and the 45-day public

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<sup>37</sup> The 2023 DROA Plan is available online at: <https://www.usbr.gov/dcp/droa.html>.

<sup>38</sup> For more information regarding DROA accounting, which includes monthly release and recovery volumes, visit  
the summary available online at:  
<https://www.usbr.gov/ColoradoRiverBasin/documents/dcp/DROA/DROSummarySheet.pdf>.

<sup>39</sup> Federal Register Notice available online at: <https://www.federalregister.gov/documents/2022/11/17/2022-25004/notice-of-intent-to-prepare-a-supplemental-environmental-impact-statement-for-december-2007-record>.

<sup>40</sup> Information regarding the SEIS is available online at:  
<https://www.usbr.gov/ColoradoRiverBasin/interimguidelines/seis/index.html>.

1 comment period for the revised draft SEIS closed on December 11, 2023.<sup>41, 42</sup> On March 8,  
2 2024, Reclamation released the final SEIS,<sup>43</sup> which included a 30-day comment period which  
3 closed on April 5, 2024. The 2024 Interim Guidelines SEIS ROD, which includes  
4 modifications to Sections 2, 6, and 7 of the 2007 Interim Guidelines, was ~~published~~ signed on  
5 May ~~69~~, 2024.

6  
7 Additional conserved water in accordance with Section 2.E of the 2007 Interim Guidelines as  
8 amended by the 2024 Interim Guidelines SEIS ROD will be accounted for in the Colorado  
9 River Accounting and Water Use Report: Arizona, California, and Nevada (Water Accounting  
10 Report).<sup>44</sup>

## 11 **System Conservation**

12 System conservation agreements have allowed water users to participate in projects designed to  
13 determine whether voluntary, temporary, and compensated programs to conserve or reduce  
14 consumptive use of Colorado River water can benefit the entire Colorado River system by  
15 mitigating the effect on declining storage levels in Colorado River reservoirs.<sup>45,46</sup> Agreements  
16 previously executed under the PSCP in the Lower Basin continue to be implemented in 2024  
17 and 2025.<sup>47</sup>

18  
19 Consistent with the Secretary's efforts to create or conserve 0.100 maf (123 mcm) or more of  
20 Colorado River system water annually in the Lower Basin under the LB DCP Agreement and  
21 the additional conservation goals under the 500 Plus Plan MOU, Reclamation and the MOU  
22 parties have entered into agreements to create system conservation water consistent with these  
23 two agreements. As of June 2023, efforts under the 500 Plus Plan have concluded. The  
24 conservation efforts in calendar year 2023 were superseded by the reservoir protection  
25 conservation efforts of the 2024 Interim Guidelines SEIS ROD and LC Conservation Program.

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<sup>41</sup> Federal Register Notice of availability online at: <https://www.federalregister.gov/documents/2023/10/27/2023-23759/environmental-impact-statements-notice-of-availability>.

<sup>42</sup> The revised draft SEIS is available online via the following link:  
<https://www.usbr.gov/ColoradoRiverBasin/documents/NearTermColoradoRiverOperations/20231019-Near-termColoradoRiverOperations-RevisedDraftEIS-508.pdf>.

<sup>43</sup> The final SEIS is available online at:  
<https://www.usbr.gov/ColoradoRiverBasin/documents/NearTermColoradoRiverOperations/20240300-Near-termColoradoRiverOperations-FinalSEIS-508.pdf>.

<sup>44</sup> Available online at: <https://www.usbr.gov/lc/region/g4000/wtracct.html>.

<sup>45</sup> Public Law 117-328 extended the System Conservation Pilot Program in the Upper Colorado River Basin through September 2024. UCRC is the contracting entity for the program and has entered into agreements for the 2023 season. More information is available online at: <http://www.ucrccommission.com/ucrc-provides-scpcp-status-update/>.

<sup>46</sup> Pursuant to Public Law 113-235, a report from the Secretary evaluating the effectiveness of the water conservation pilot projects was submitted to Congress, including a recommendation that the activities undertaken by the pilot projects should be continued. More information is available online at:  
[https://www.usbr.gov/lc/region/programs/PilotSysConsProg/report\\_to\\_congressW\\_appendices2021.pdf](https://www.usbr.gov/lc/region/programs/PilotSysConsProg/report_to_congressW_appendices2021.pdf).

<sup>47</sup> More information on the PSCP in the Lower Basin can be found online at:  
<https://www.usbr.gov/lc/region/programs/PilotSysConsProg/pilotsystem.html>.



1 **UC Conservation Program**  
2

3 In December 2022, Congress authorized the System Conservation Pilot Program (SCPP) in the  
4 Upper Division States.<sup>45</sup> Reclamation executed a SCPP funding agreement with the Upper  
5 Division States acting through the UCRC in January 2023. The UCRC executed 110 SCPP  
6 implementation agreements in Utah, Wyoming, Colorado, and New Mexico for ~~2023~~2024. The  
7 UCRC estimates approximately 66,000 acre-feet (81 mcm) of system water was conserved in  
8 ~~2023~~2024. ~~The Upper Division States acting through the UCRC are implementing an additional~~  
9 ~~SCPP effort in 2024 in partnership with Reclamation.~~

10  
11 **LC Conservation Program**  
12

13 Reclamation has continued its efforts to address the drought crisis with prompt and responsive  
14 actions and investments to ensure the entire Colorado River Basin can function and support all  
15 who rely on it. The LC Conservation Program<sup>48</sup> is intended to provide new opportunities for  
16 system conservation in the Lower Colorado River Basin that also lead to additional  
17 conservation and bridge the immediate need while moving toward improved system efficiency  
18 and more durable long-term solutions for the System. As of May 2024, Reclamation has  
19 entered into 23 agreements to conserve 1.57 maf (1,937 mcm) through 2026.<sup>49</sup> Additional  
20 projects or agreements to create or conserve system water in the Lower Basin may also be  
21 implemented in calendar year 2024 and/or 2025. ~~The LC Conservation Program has three~~  
22 ~~components:~~

23  
24 ~~1.a. Proposals for system conservation resulting in additional volumes of water remaining in~~  
25 ~~Lake Mead at set prices depending on the length of the commitment (one to three years).~~

26  
27 ~~1.b. Proposals describing lower Colorado River Basin water conservation plans that can be~~  
28 ~~implemented resulting in reductions in consumptive use of lower Colorado River water having~~  
29 ~~a recent history of use.~~

30  
31 ~~2. Proposals for long-term system efficiency improvements that will result in multi-year system~~  
32 ~~conservation.~~

33  
34 ~~The funding opportunity announcement for components 1.a and 1.b was open for proposal~~  
35 ~~submissions from October 12, 2022 through November 21, 2022. The funding opportunity~~  
36 ~~announcement for component 2 was open for proposal submissions from May 24, 2023,~~  
37 ~~through August 18, 2023. A summary table of executed agreements is available on the LC~~  
38 ~~Conservation Program website.~~

39  
40 ~~Additional projects or agreements to create or conserve system water in the Lower Basin may~~  
41 ~~also be implemented in calendar year 2024 and/or 2025.~~

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<sup>48</sup> More information on the LC Conservation Program can be found online at:  
<https://www.usbr.gov/lc/LCBCConservation.html>.

<sup>49</sup> Draft summary table of executed agreements is available online at:  
<https://www.usbr.gov/lc/region/programs/LCBCConservation&EfficiencyProgram/SystemConservationAgreements.pdf>.



1 ~~System conservation under the LC Conservation Program will be incorporated into the~~  
2 ~~reservoir protection conservation efforts under Section 2.E of the 2007 Interim Guidelines as~~  
3 ~~amended by the 2024 Interim Guidelines SEIS ROD.~~

## 4 5 **2024 HYDROLOGY SUMMARY AND RESERVOIR STATUS**

6  
7 **Below average** streamflow<sup>50</sup> was observed throughout much of the Colorado River Basin  
8 during water year 2024. Unregulated<sup>51</sup> inflow to Lake Powell in water year 2024 was **7.79 maf**  
9 **(9,610 mcm)**, or **81** percent of the 30-year average<sup>52</sup> which is 9.60 maf (11,840 mcm).  
10 Unregulated inflow to Flaming Gorge, Blue Mesa, and Navajo Reservoirs was **90, 90,** and **62**  
11 percent of average, respectively.

12  
13 Precipitation in the Upper Colorado River Basin was **near average**<sup>53</sup> during water year 2024.  
14 On September 30, 2024, the cumulative precipitation received within the Upper Colorado River  
15 Basin for water year 2024 was **102** percent of median.

16  
17 Snowpack conditions trended **near average** across most of the Colorado River Basin throughout  
18 the water year 2024 snow accumulation season. The basin wide snow water equivalent  
19 measured 114 percent of the median peak on April 3, 2024, which is three days earlier than the  
20 peak seasonal accumulation day of April 6. On April 1, 2024, the snow water equivalents for  
21 the Green River, Upper Colorado River Headwaters, and San Juan River Basins were 103, 108,  
22 and 108 percent of median, respectively.

23  
24 During the 2024 spring runoff period, inflows to Lake Powell peaked on **XX, 2024** at  
25 approximately **XX,XXX** cubic feet per second (cfs) (**XX,XXX** cubic meters per second [cms]).  
26 The April through July unregulated inflow volume for Lake Powell was **5.10** maf (**6,290** mcm)  
27 which was **80** percent of average.<sup>54</sup>  
28

---

<sup>50</sup> Streamflow statistics throughout this document are provided by the National Weather Service's Colorado Basin River Forecast Center and are based on the average/median for the 30-year period 1991-2020, unless otherwise noted. Hydrologic conditions are described in the following manner: much above average/median (greater than 130%), above average/median (111%-130%), near average/median (90%-110%), below average/median (70%-89%), and much below average/median (less than 70%). Reservoir specific ROD descriptions are used in place of this terminology where applicable.

<sup>51</sup> Unregulated inflow adjusts for the effects of operations at upstream reservoirs. It is computed by adding the change in storage and the evaporation losses from upstream reservoirs to the observed inflow. Unregulated inflow is used because it provides an inflow time series that is not biased by upstream reservoir operations.

<sup>52</sup> Inflow statistics throughout this document will be compared to the mean of the 30-year period 1991-2020, unless otherwise noted.

<sup>53</sup> Snowpack, snow water equivalent and precipitation statistics throughout this document are provided by the Natural Resources Conservation Service and are based on the median for the 30-year period 1991-2020, unless otherwise noted. Hydrologic conditions are described in the following manner: much above average/median (greater than 130%), above average/median (111%-130%), near average/median (90%-110%), below average/median (70%-89%), and much below average/median (less than 70%). Reservoir specific ROD descriptions are used in place of this terminology where applicable.

<sup>54</sup> Water year 2024 forecast information from the Colorado Basin River Forecast Center (CBRFC) is available online at: [https://www.cbrfc.noaa.gov/wsup/graph/espgraph\\_hc.html?year=2024&id=GLDA3](https://www.cbrfc.noaa.gov/wsup/graph/espgraph_hc.html?year=2024&id=GLDA3).

1 Lower Basin tributary inflows above Lake Mead were below average for water year 2024.  
2 Tributary inflow measured at the Little Colorado River near Cameron gage for water year 2024  
3 totaled 0.064 maf (79 mcm), or 54 percent of average. Tributary inflow measured at the Virgin  
4 River at Littlefield gage for water year 2024 totaled 0.148 maf (183 mcm), or 86 percent of  
5 average.

6  
7 Below Hoover Dam, tributary inflow for water year 2024 measured at the Bill Williams River  
8 below Alamo Dam gage totaled 0.022 maf (27 mcm), and tributary inflow measured at the Gila  
9 River near Dome gage totaled 0.076 maf (94 mcm).<sup>55</sup>

10  
11 The Colorado River total system storage experienced a net decrease of 0.47 maf (580 mcm) in  
12 water year 2024. Reservoir storage in Lake Powell increased during water year 2024 by 0.60  
13 maf (740 mcm). Reservoir storage in Lake Mead increased during water year 2024 by 1.54 maf  
14 (1,900 mcm). At the beginning of water year 2024 (October 1, 2023), Colorado River total  
15 system storage was 43 percent of capacity. As of September 30, 2024, total system storage was  
16 42 percent of capacity.

17  
18 Tables 1 and 2 list the October 1, 2024, reservoir vacant space, live storage, water elevation,  
19 percent of capacity, change in storage, and change in water elevation during water year 2024.  
20

---

<sup>55</sup> Tributary inflows from the Bill Williams River and Gila River to the mainstream are very sporadic. These flows occur very seldom and when they do, they are typically of high magnitude.

1

**Table 1. Reservoir Conditions on October 1, 2024 (English Units)**

| Reservoir     | Vacant Space | Live Storage | Water Elevation | Percent of Capacity | Change in Storage | Change in Elevation |
|---------------|--------------|--------------|-----------------|---------------------|-------------------|---------------------|
|               | (maf)        | (maf)        | (ft)            | (%)                 | (maf)             | (ft)                |
| Fontenelle    | 0.062        | 0.277        | 6,498.50        | 82                  | -0.008            | -1.1                |
| Flaming Gorge | 0.490        | 3.18         | 6,027.76        | 87                  | -0.075            | -2.0                |
| Blue Mesa     | 0.316        | 0.512        | 7,481.31        | 62                  | -0.118            | -15.2               |
| Morrow Point  | 0.005        | 0.112        | 7,153.73        | 96                  | 0.003             | 3.7                 |
| Crystal       | 0.001        | 0.017        | 6,753.04        | 95                  | 0.000             | 1.0                 |
| Navajo        | 0.559        | 1.089        | 6,042.70        | 66                  | -0.057            | -5.2                |
| Lake Powell   | 14.28        | 9.04         | 3,576.76        | 39                  | 0.25              | 3.2                 |
| Lake Mead     | 17.64        | 8.48         | 1,060.77        | 32                  | -0.39             | -5.1                |
| Lake Mohave   | 0.192        | 1.62         | 640.01          | 89                  | 0.031             | 1.2                 |
| Lake Havasu   | 0.049        | 0.570        | 447.50          | 92                  | -0.012            | -0.6                |
| Total         | 33.59        | 24.90        |                 | 43                  | -0.38             |                     |

2

3

1

**Table 2. Reservoir Conditions on October 1, 2024 (Metric Units)**

| Reservoir     | Vacant Space | Live Storage | Water Elevation | Percent of Capacity | Change in Storage | Change in Elevation |
|---------------|--------------|--------------|-----------------|---------------------|-------------------|---------------------|
|               | (mcm)        | (mcm)        | (m)             | (%)                 | (mcm)             | (m)                 |
| Fontenelle    | 76           | 342          | 1,980.74        | 82                  | -10               | -0.3                |
| Flaming Gorge | 604          | 3,922        | 1,837.26        | 87                  | -93               | -0.6                |
| Blue Mesa     | 390          | 632          | 2,280.30        | 62                  | -146              | -4.6                |
| Morrow Point  | 6            | 138          | 2,180.46        | 96                  | 4                 | 1.1                 |
| Crystal       | 1            | 21           | 2,058.33        | 95                  | 0                 | 0.3                 |
| Navajo        | 690          | 1,343        | 1,841.81        | 66                  | -70               | -1.6                |
| Lake Powell   | 17,610       | 11,151       | 1,090.20        | 39                  | 308               | 1.0                 |
| Lake Mead     | 21,760       | 10,460       | 323.32          | 32                  | -480              | -1.6                |
| Lake Mohave   | 237          | 1,998        | 195.07          | 89                  | 38                | 0.4                 |
| Lake Havasu   | 60           | 703          | 136.40          | 92                  | -15               | -0.2                |
| Total         | 41,430       | 30,710       |                 | 43                  | -470              |                     |

2

3

## 2025 WATER SUPPLY ASSUMPTIONS

For 2025 operations, three reservoir unregulated inflow scenarios were developed and analyzed: minimum probable, most probable, and maximum probable.

There is considerable uncertainty associated with streamflow forecasts and projections of reservoir operations made a year in advance. The National Weather Service's CBRFC forecasts the inflow for the minimum probable (90 percent exceedance), most probable (50 percent exceedance), and maximum probable (10 percent exceedance) inflow scenarios using an Ensemble Streamflow Prediction model. Based upon the August CBRFC forecast, the range of unregulated inflows is projected to be as follows:

- The forecasted minimum probable unregulated inflow to Lake Powell in water year 2025 is **X.XX** maf (**X,XXX** mcm), or **XX** percent of average.
- The forecasted most probable unregulated inflow to Lake Powell in water year 2025 is **9.37** maf (**11,560** mcm), or **98** percent of average.
- The forecasted maximum probable unregulated inflow to Lake Powell in water year 2025 is **XX.XX** maf (**XX,XXX** mcm), or **XXX** percent of average.

Projected unregulated inflow volumes<sup>56</sup> into Lake Powell for specific time periods for these three forecasted inflow scenarios are shown in Tables 3 and 4.

Inflows to the mainstream from Lake Powell to Lake Mead, Lake Mead to Lake Mohave, Lake Mohave to Lake Havasu, and below Lake Havasu are projected using historic data over the five-year period of January 2019 through December 2023, inclusive. These five years of historic data are representative of the most recent hydrologic conditions in the Lower Basin. The most probable side inflows into each reach are estimated as the arithmetic mean of the five-year record. The maximum probable and minimum probable projections for each reach are the 10 percent and 90 percent exceedance values, respectively, of the five-year record. For the reach from Lake Powell to Lake Mead, the minimum probable inflow during water year 2025 is 0.724 maf (893 mcm), the most probable inflow is 0.896 maf (1,110 mcm), and the maximum probable inflow is 1.11 maf (1,370 mcm).

The projected monthly volumes of inflow were input into the 24-Month Study and used to project potential reservoir operations for 2025. Starting with the August 2024 24-Month Study projection of the October 1, 2025 reservoir storage conditions, the projected monthly releases for each reservoir were adjusted until release and storage levels best accomplished project purposes and applicable operational objectives.

For the latest monthly projections for the major reservoirs in the Colorado River system, please see the most recent 24-Month Study report available on these Reclamation websites:

<https://www.usbr.gov/uc/water/crsp/studies/index.html>, or  
<https://www.usbr.gov/lc/region/g4000/riverops/coriver-projections.html>.

<sup>56</sup> 24-Month Study projections using the CBRFC unregulated inflow forecast do not represent the full range of future possibilities that could occur with different scenarios.

1 **Table 3. Projected Unregulated Inflow into Lake Powell for Water Year 2025 (English Units)**<sup>57</sup>

| Time Period        | Minimum Probable (maf) | Most Probable (maf) | Maximum Probable (maf) |
|--------------------|------------------------|---------------------|------------------------|
| 10/2024 – 12/2024  | X.XX                   | 1.21                | X.XX                   |
| 1/2025 – 3/2025    | X.XX                   | 1.36                | X.XX                   |
| 4/2025 – 7/2025    | X.XX                   | 6.11                | X.XX                   |
| 8/2025 – 9/2025    | X.XX                   | 0.69                | X.XX                   |
| 10/2025 – 12/2025  | X.XX                   | 1.23                | X.XX                   |
| Water Year 2025    | X.XX                   | 9.37                | X.XX                   |
| Calendar Year 2025 | X.XX                   | 9.39                | X.XX                   |

2

3 **Table 4. Projected Unregulated Inflow into Lake Powell for Water Year 2025 (Metric Units)**

| Time Period        | Minimum Probable (mcm) | Most Probable (mcm) | Maximum Probable (mcm) |
|--------------------|------------------------|---------------------|------------------------|
| 10/2024 – 12/2024  | X.XX                   | 1,490               | X.XX                   |
| 1/2025 – 3/2025    | X.XX                   | 1,680               | X.XX                   |
| 4/2025 – 7/2025    | X.XX                   | 7,540               | X.XX                   |
| 8/2025 – 9/2025    | X.XX                   | 850                 | X.XX                   |
| 10/2025 – 12/2025  | X.XX                   | 1,520               | X.XX                   |
| Water Year 2025    | X.XX                   | 11,560              | X.XX                   |
| Calendar Year 2025 | X.XX                   | 11,580              | X.XX                   |

4

<sup>57</sup> All values in Tables 3 and 4 are projected inflows based upon the August 2024 CBRFC forecast. The CBRFC Most Probable forecast is issued as monthly values. The CBRFC Minimum and Maximum Probable forecasts are issued as water year totals, which Reclamation disaggregates to monthly values using monthly proportions of the 10<sup>th</sup> and 90<sup>th</sup> percentiles, respectively, of the 1991-2020 unregulated inflow.



# SUMMARY OF RESERVOIR OPERATIONS IN 2024 AND PROJECTED 2025 RESERVOIR OPERATIONS

The operation of the Colorado River reservoirs has affected some aquatic and riparian resources. Controlled releases from dams have modified temperature, sediment load, and flow patterns, resulting in increased productivity of some riparian and non-native aquatic resources and the development of economically significant sport fisheries. However, these same releases can have detrimental effects on endangered and other native species. Operating strategies designed to protect and enhance aquatic and riparian resources have been established after appropriate NEPA compliance at several locations in the Colorado River Basin.

In the Upper Basin, public stakeholder work groups have been established at Fontenelle Dam, Flaming Gorge Dam, the Aspinall Unit, and Navajo Dam. These work groups provide a public forum for dissemination of information regarding ongoing and projected reservoir operations throughout the year and allow stakeholders the opportunity to provide information and feedback with respect to ongoing reservoir operations. Additionally, the Glen Canyon Dam Adaptive Management Work Group (AMWG)<sup>58</sup> was established in 1997 as a chartered committee under the Federal Advisory Committee Act of 1972 (Public Law 92-463).

Modifications to projected operations are routinely made based on changes in forecasted conditions or other relevant factors as discussed below. Within the parameters set forth in the Law of the River and considering the Upper Colorado River Endangered Fish Recovery Program (UCRIP),<sup>59</sup> the San Juan River Basin Recovery Implementation Program (SJRIP),<sup>60</sup> Section 7 consultations under the Endangered Species Act, and other downstream concerns, modifications to projected monthly operations may be based on other factors in addition to changes in streamflow forecasts. Decisions on spring peak releases and downstream habitat target flows may be made midway through the runoff season. Reclamation will conduct meetings with Recovery Program participants, the USFWS, other Federal agencies, representatives of the Basin States, and with public stakeholder work groups to facilitate the discussions necessary to finalize site-specific projected operations.

The following paragraphs discuss reservoir operations in 2024 and the range of probable projected 2025 operations of each of the reservoirs with respect to applicable provisions of compacts, the Consolidated Decree, statutes, regulations, contracts, agreements, and instream flow needs for maintaining or improving aquatic and riparian resources where appropriate.

## Fontenelle Reservoir

Reservoir storage in Fontenelle **decreased** during water year 2024. At the beginning of water year 2024, Fontenelle storage was 85 percent of live capacity at elevation 6,499.60 feet (1,981.08 meters), with 0.285 maf (352 mcm) in storage. The unregulated inflow to Fontenelle during water year 2024 was **0.936** maf (**1,150** mcm) which is **92** percent of average. At the end of the water year, September 30, 2024, Fontenelle storage was at **82** percent of live capacity at

<sup>58</sup> Information on the AMWG can be found at: <https://www.usbr.gov/uc/progact/amp/amwg.html>.

<sup>59</sup> Information on the UCRIP can be found at: <http://coloradoriverrecovery.org>.

<sup>60</sup> Information on the SJRIP can be found at: <https://www.fws.gov/southwest/sjrip>.

1 elevation 6,498.50 feet (1,980.74 meters), with a storage of 0.277 maf (342 mcm) resulting in a  
2 net decrease during water year 2024 of 0.008 maf (9.9 mcm).  
3

4 Hydrologic conditions in the Upper Green River Basin above Fontenelle were below average in  
5 water year 2024. Snowpack development tracked near median with near average winter  
6 conditions resulting in a below average runoff forecast. Peak snow water equivalent reached  
7 103 percent of seasonal median on April 8, 2024. The observed inflow during the April to July  
8 season was 0.600 maf (700 mcm), or 82 percent of average.  
9

10 Fontenelle Reservoir storage peaked at 97 percent of full capacity in water year 2024. The  
11 reservoir elevation peaked at 6,504.82 feet (1,982.67 meters) on July 31, 2024, which was 1.18  
12 feet (0.36 meters) below the spillway crest. Daily inflow peaked at 5,690 cfs (161 cms) on June  
13 8, 2024. Reservoir releases were made to balance downstream water resources needs and power  
14 production, while also allowing for filling the reservoir to maintain sufficient water in storage  
15 for use through the fall and winter months. Due to the below average hydrologic conditions,  
16 there was an average spring peak release at Fontenelle Reservoir.  
17

18 Based on the August 2024 24-Month Study, the most probable April through July inflow for  
19 Fontenelle Reservoir during water year 2025 is XXX maf (XXX mcm) or XX percent of  
20 average. This volume exceeds the 0.334 maf (412 mcm) live storage capacity of Fontenelle  
21 Reservoir. For this reason, the most probable and maximum probable inflow scenarios would  
22 require releases during the spring that exceed the capacity of the powerplant to avoid  
23 uncontrolled spills from the reservoir. It is likely that Fontenelle Reservoir will fill during water  
24 year 2025. In order to minimize high spring releases and to maximize downstream water  
25 resources and power production, the reservoir will most likely be drawn down to about  
26 elevation X,XXX feet (X,XXX meters) by late XX 2025, which is XX feet (XX meters) above  
27 the minimum operating level and corresponds to a volume of XX maf (XXX mcm) of live  
28 storage.

## 29 Flaming Gorge Reservoir

30 Reservoir storage in Flaming Gorge decreased during water year 2024. At the beginning of  
31 water year 2024, Flaming Gorge storage was 90 percent of live capacity at elevation 6,029.73  
32 feet (1,837.86 meters), with 3.25 maf (4,010 mcm) in storage. The unregulated inflow to  
33 Flaming Gorge during water year 2024 was 1.27 maf (1,570 mcm) which is 90 percent of  
34 average. At the end of the water year, Flaming Gorge storage was at 87 percent of live capacity  
35 at elevation 6,027.76 feet (1,837.26 meters), with 3.18 maf (3,920 mcm) resulting in a net  
36 decrease during water year 2024 of 0.070 maf (86 mcm).  
37

38 ~~Spring period hydrologic classification in the Upper Green River Basin above Flaming Gorge~~  
39 ~~was average in water year 2024 snowpack in the Upper Green River Basin above~~  
40 ~~Flaming Gorge where the snowpack~~ tracked near median with near average winter conditions  
41 resulting in below average runoff forecasts. Peak snow water equivalent reached 103 percent of  
42 seasonal median on April 7, 2024. ~~The May forecast for the April through July inflow into~~  
43 ~~Flaming Gorge Reservoir was 0.80 maf (987 mcm), or 83 percent of average.~~ The observed  
44 inflow during the spring runoff season was 0.80 maf (987 mcm), or 83 percent of average.

1 Observed flow volumes from the Yampa River Basin fell into the average hydrologic  
2 condition.

3  
4 A 2023 Plan<sup>61</sup> was approved by the Upper Division States, the Upper Colorado River  
5 Commission, and the Department of the Interior. The 2023 Plan emphasized recovery of prior  
6 DROA releases totaling 0.588 maf (725 mcm) from Flaming Gorge. Recovery of Flaming  
7 Gorge was completed on February 28, 2024.

8  
9 The Flaming Gorge Operation Plan for May 2024 through April 2025 (FG-Ops) was developed  
10 and approved by Reclamation pursuant to the 2006 Flaming Gorge ROD. ~~and includes the 2023  
11 Plan.~~ The FG-Ops outlines UCRIP flow requests for the average (below median) and drier,  
12 average (above median), moderately wet, and wet hydrologic classifications.<sup>62</sup> The average  
13 (above and below median), and drier scenarios includes the Larval Trigger Study Plan (LTSP)  
14 spring release (spring release based on a biological trigger)<sup>63</sup> and ~~an optional~~ smallmouth bass  
15 (SMB) flow spike (to disrupt the spawning success of non-native smallmouth bass).<sup>64</sup> ~~pending  
16 hydrology and water temperature.~~ Experiments that are outlined in the FG-Ops Plan implement  
17 flow ranges and targets from LaGory et al. (2019).<sup>65</sup> The May forecast for the April through  
18 July inflow into Flaming Gorge Reservoir was 0.80 maf (987 mcm), or 83 percent of average,  
19 which designated Flaming Gorge spring operations to an average (below median) classification.  
20 After much consideration, the Flaming Gorge Technical Working Group representatives,  
21 Colorado River Recovery Program, and subject matter experts agreed that the smallmouth bass  
22 spike flow experiment would not be recommended this operational year. This was due to  
23 potential negative impacts to the endangered Colorado pikeminnow (CPM).

24  
25 LTSP spring releases were timed with a biological trigger. After public notification, releases  
26 from Flaming Gorge Dam were increased to the full powerplant capacity of 4,600 cfs (130  
27 cms) and the full bypass capacity of 4,000 cfs (113 cms) on May 24, 2024 for 2 days then  
28 ramped down by 2,000 cfs/day (56.6 cms/day) to 4,600 cfs (130 cms).<sup>65</sup> Yampa River flows at  
29 the Deerlodge gage during the spring peak releases peaked at 11,600 cfs (328 cms) on May 22,  
30 2024. The peak release from Flaming Gorge Dam occurred after the Yampa River peak. Flows

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<sup>61</sup> Drought Response Operations Framework and Plan: <https://www.usbr.gov/dcp/docs/DROA/20230517-2023DROAPlan-508-UCRO.pdf>.

<sup>62</sup> The adaptive management process will rely on ongoing or added Recovery Program activities for monitoring and studies to test the outcomes of modifying the flows and release temperatures from Flaming Gorge Dam. ROD Operation of Flaming Gorge Dam Final Environmental Impact Statement, February 2006. Available online at: <https://www.usbr.gov/uc/envdocs/rod/fgFEIS/final-ROD-15feb06.pdf>.

<sup>63</sup> The LTSP's primary objective is to determine the effects of timing of Flaming Gorge spring release on razorback sucker larvae in the reach below the confluence of the Green and Yampa Rivers. The LTSP Report is available online at: <https://www.usbr.gov/uc/water/crsp/wg/fg/twg/twgSummaries.html>.

<sup>64</sup> Smallmouth bass flow spike study plan titled: Evaluate effects of flow spikes to disrupt reproduction of smallmouth bass in the Green River downstream of Flaming Gorge Dam. K.R. Bestgen, 2018. Available online at: <https://www.coloradoriverrecovery.org/documents-publications/technical-reports/isf/Bestgen2018Smallmouth%20bass%20study%20planNovember2018.pdf>.

<sup>65</sup> LaGory, K.E., K.R. Bestgen, H. Patno, J. Wilhite, D. Speas, and M. Trammell. 2019. *Evaluation and Suggested Revisions of Flow and Temperature Recommendations for Endangered Fish in the Green River Downstream of Flaming Gorge Dam*. Final report to the U.S. Fish and Wildlife Service Colorado River Endangered Fish Recovery Program, Denver, Colorado, October 2019 and pending approval through the UCRIP Management Committee.

1 measured on the Green River at the Jensen, Utah gage reached levels at or above 18,600 cfs  
2 (526 cms) for 1 days in May and June, 2024, with an average daily peak of 20,200 cfs (572  
3 cms) on May 24, 2024. The spring peak ~~release in for~~ Reach 2 for this hydrologic classification  
4 ~~was~~ greater than or equal to 14,000 cfs (396 cms) for 7 days.

5  
6 The releases for the SMB flow spike began increasing to full powerplant capacity on June 24,  
7 2024. Full power plant releases, 4,600 cfs (130 cms), were sustained for 3 days (June 24-26, 72  
8 hours) followed by a 2-day ramp down at a maximum of 2,000 cfs/day (56.6 cms/day). The  
9 experiment concluded on June 28, 2024.

10  
11 In water year 2024, Flaming Gorge Reservoir was operated in accordance with the 2006  
12 Flaming Gorge ROD. Water year 2024 winter base flow releases ranged from 2,000 cfs (56.6  
13 cms) to approximately 2,120 cfs (60.0 cms). The April through July observed unregulated  
14 inflow resulted in an initial hydrologic classification of average for the summer baseflow  
15 period and an average hydrologic operation. Per the Flaming Gorge ROD, the hydrologic  
16 condition for the baseflow period is to be evaluated monthly and is subject to change pending  
17 hydrologic conditions. was conducted for the month of August. The August observed  
18 unregulated inflow was 0.095 maf (117 mem), a 39 percent exceedance value, and within the  
19 average hydrologic classification range. Due to February 2024 end of month calculations and  
20 the August observed unregulated inflow, an average hydrologic classification will be targeted  
21 for the remainder of the baseflow period. The hydrologic classification for the baseflow period  
22 is subject to change pending hydrologic conditions. The August Summer baseflow releases are  
23 were within the 2000 Flow and Temperature Recommendations range of 1,500 cfs (42.4) to  
24 2,400 cfs (67.9 cms) at Reach 2 including being within the +/-40 percent range flexibility. ~~The~~  
25 ~~September releases are within the 2000 Flow and Temperature Recommendations range of~~  
26 ~~1,500 cfs (42.4 cms) to 2,400 cfs (67.9 cms) at Reach 2.~~ To meet CPM flow targets in August  
27 and September the flow range specified for CPM in LaGory et al. (2019)<sup>65</sup> were achieved in  
28 Reach 2 for an average hydrologic classification. Summer base flow average daily releases  
29 ranged from 900 cfs (25.5 cms) to 1,900 cfs (53.8 cms).

30  
31 A spring peak release is projected to occur in May or June 2025 and will be timed to coincide  
32 with either the peak flows of the Yampa River or emergence of razorback sucker larvae.  
33 Reclamation is considering long-term implementation strategies for the UCRIP LTSP.

34  
35 Based on the August 2024 24-Month Study, the most probable April through July unregulated  
36 inflow scenario for Flaming Gorge Reservoir during water year 2025 is XX maf (XXX mcm),  
37 or XX percent of average. The peak elevation is expected to be approximately X,XXX feet  
38 (X,XXX meters) near XX, 2025. By the end of water year 2025, Flaming Gorge Reservoir is  
39 projected to be at elevation X,XXX feet (X,XXX meters), with a storage of XX maf (XXX  
40 mcm), or XX percent of live capacity.

41  
42 Under the minimum probable 2025 April through July inflow forecast of XX maf (XXX mcm),  
43 a X,XXX cfs (XXX cms) 2025 spring peak release will be implemented. Under the maximum  
44 probable 2025 April through July inflow forecast of XX maf (XXX mcm), an X,XXX cfs  
45 (XXX cms) spring peak release will be implemented.



1 The UCRIP, in coordination with Reclamation, USFWS, and WAPA, will continue conducting  
2 studies associated with floodplain inundation. Such studies may result in alternatives for  
3 meeting flow and temperature recommendations at lower peak flow levels where feasible.

#### 4 **Blue Mesa, Morrow Point, and Crystal Reservoirs (Aspinall Unit)**

5 Reservoir storage content in Blue Mesa decreased during water year 2024. At the beginning of  
6 water year 2024, Blue Mesa storage content was 76 percent of live capacity at elevation  
7 7,496.50 feet (2,284.93 meters), with 0.630 maf (777 mcm) in storage. The unregulated inflow  
8 to Blue Mesa during water year 2024 was 0.810 maf (999 mcm), which was 90 percent of  
9 average. During water year 2024, the peak elevation of Blue Mesa Reservoir occurred on June  
10 XX at an elevation of X,XXX.XX feet (X,XXX.XX meters), which was at the full pool  
11 elevation. At the end of the water year, Blue Mesa storage content was 62 percent of live  
12 capacity at elevation 7,481.31 feet (2,280.30 meters), with 0.510 maf (629 mcm) resulting in a  
13 net decrease during water year 2024 of 0.120 maf (148 mcm).

14  
15 A 2023 DROA Plan was approved by the Upper Division States, the Upper Colorado River  
16 Commission, and the Department of the Interior. The 2023 Plan emphasized recovery of prior  
17 DROA releases totaling 0.036 maf (44 mcm) from Blue Mesa. Recovery of Blue Mesa was  
18 completed on December 29, 2023.

19  
20 A near average snowpack conditions occurred during the winter months of water year 2024 in  
21 the Gunnison River Basin. Snow measurement sites in the basin reported near median seasonal  
22 snow water equivalent levels throughout the winter and into the spring of 2024 resulting in an  
23 April 1, 2024 snow water equivalent for the Gunnison River Basin that was 104 percent of  
24 median.

25  
26 The fall-through-winter releases from Crystal Dam were consistently near 570 cfs (16.0 cms)  
27 after the Gunnison Tunnel ended diversions for irrigation season on November 14, 2023. On  
28 March 19, 2024, releases from Crystal Dam were increased for the 2024 irrigation season as  
29 operation of the Gunnison Tunnel began diverting approximately 200 cfs (5.66 cms). Flows  
30 through the Black Canyon were maintained within the range of approximately 500 cfs (14.0  
31 cms) to approximately 600 cfs (17.0 cms) until May 13, 2024.

32  
33 The May 2024 final forecast<sup>66</sup> for the unregulated inflow to Blue Mesa for the April through  
34 July runoff period was 0.570 maf (703 mcm), which was 90 percent of average. This forecast  
35 was used to establish the hydrologic category for water year 2024 as average dry with a peak  
36 flow target established for the Gunnison River of 8,070 cfs (228 cms) for 10 days as measured  
37 at the Gunnison River near Grand Junction, CO stream gage (Whitewater gage).<sup>67</sup> The actual  
38 April through July unregulated inflow into Blue Mesa Reservoir in 2024 was 0.570 maf (703  
39 mcm), which was 90 percent of average.

66 The term “final forecast” or “official forecast” refers to the CBRFC runoff forecast for unregulated inflow into CRSP reservoirs that is received by Reclamation during the first few business days of each month.

67 Link to the Gunnison River near Grand Junction, CO USGS gage: <https://waterdata.usgs.gov/monitoring-location/09152500/#parameterCode=00065&period=P7D>.

1 On May ~~12~~20, 2024, high flows were forecasted for the North Fork of the Gunnison River.  
2 Therefore, releases were increased from Crystal, Morrow Point, and Blue Mesa to target a 10  
3 day single downstream pPeak fFlow for the flow levels and durations described in the Aspinall  
4 ROD and the Black Canyon Water Right Decree. Specifically, these releases were made to  
5 target a ~~two~~10-day peak flow of 14,3508,070 cfs (408-228 cms) as measured at the Whitewater  
6 gage, and a 24-hour peak flow of 6,4004,035 cfs (181-114 cms) in the Black Canyon.

7  
8 ~~By May 18, 2023, flows in the Gunnison River near Delta approached a level that was~~  
9 ~~concerning to the operators of the Delta wastewater treatment plant (13,000 cfs (368 cms)). Due~~  
10 ~~to the concerns with the Delta wastewater treatment plant and additional high water concerns in~~  
11 ~~Delta County, Reclamation halted the ramp up schedule and held releases steady to keep flows~~  
12 ~~below 13,000 cfs (368 cms) at Delta. On May 22, 2023, a down ramp was scheduled to return~~  
13 ~~releases to full powerplant capacity (approximately 1,990 cfs (56.3 cms)) from Crystal~~  
14 ~~Reservoir, which was achieved on May 26, 2023.~~

15  
16 During spring peak operations, flows in the Gunnison River as measured at the Whitewater  
17 gage achieved an average daily peak flow of above 8,070 cfs (228 cms) for ten days on May  
18 22-31, 2024, reaching 8,400 cfs (238 cms) on May 22, 2024. ~~As noted, due to high downstream~~  
19 ~~tributary inflow, originally planned releases from the Aspinall Unit were not needed to reach~~  
20 ~~earlier projections of ROD objectives. Flows in the Gunnison River measured at the~~  
21 ~~Whitewater gage achieved an average daily flow of above 8,070 cfs (228 cms) for 32 days.~~  
22 These flows ~~doubled the targeted~~ downstream peak flow durations described in the Aspinall  
23 ROD and ~~exceeded the downstream half bank flow levels and~~ durations described in the  
24 Aspinall ROD ~~by twelve days~~. Flow in the Black Canyon during this time peaked on May 22,  
25 2024, at 6,100 cfs (173 cms).

26  
27 ~~On June 1, 2023, Reclamation determined that a de-synchronized peak of 6,400 cfs (181 cms)~~  
28 ~~would be targeted pursuant to Section 32.4.4 of the Black Canyon Water Right Decree, which~~  
29 ~~states that to the extent practicable, the Black Canyon Water Right target peak flow shall be~~  
30 ~~coordinated with releases made pursuant to the ROD to achieve a single peak flow, subject to~~  
31 ~~section 32.2.2 (flood prevention). On June 21, 2024, releases increased from the Aspinall Unit~~  
32 ~~to ramp up to a total release rate of 7,297 cfs (206 cms) for 24 consecutive hours, which~~  
33 ~~occurred on June 28, 2024. The 24-hour peak flow in the Black Canyon was 7,404 cfs (210~~  
34 ~~cms) which occurred on June 27-28, 2023.~~

35  
36 ~~Following this action, releases were gradually reduced until July 8, 2023, when bypass releases~~  
37 ~~at Crystal were terminated and all releases were made through the Crystal powerplant. The~~  
38 ~~peak elevation at Blue Mesa was achieved on June 25, 2023 when the elevation was 7,512.47~~  
39 ~~feet (2,289.80 meters) with a corresponding storage of 0.765 acre-feet (944 mem) or 92 percent~~  
40 ~~of capacity.~~

41  
42 For water year 2024, the Aspinall Unit will be operated in compliance with the 2012 Aspinall  
43 ROD, including all required consultations and consistent with applicable law, while  
44 maintaining and continuing to meet its Congressionally authorized purposes.



1 Based on the August 2024 24-Month Study, the projected most probable unregulated inflow for  
2 water year 2025 into Blue Mesa Reservoir is XX maf (XXX mcm), or XX percent of average.  
3 The reservoir is expected to reach a seasonal low elevation of X,XXX feet (X,XXX meters) in  
4 March 2025. The peak elevation is expected to be approximately X,XXX feet (X,XXX meters)  
5 near the end of July 2025. By the end of water year 2025, Blue Mesa Reservoir is projected to  
6 be at elevation X,XXX feet (X,XXX meters), with a storage content of XX maf (XXX mcm),  
7 or XX percent of capacity.

8  
9 Under the minimum probable 2025 April through July inflow forecast of XX maf (XXX mcm),  
10 there will be X-day spring peak release during the spring of 2025. Under the maximum  
11 probable 2025 April through July inflow forecast of XX maf (XXX mcm), a X-day spring peak  
12 release will be implemented as described in the 2012 Aspinall ROD for water year 2025.

### 13 Navajo Reservoir

14 Storage in Navajo Reservoir decreased during water year 2024. At the beginning of water year  
15 2024, Navajo storage was 70 percent of live capacity at elevation 6,047.77 feet (1,843.36  
16 meters), with 1.150 maf (1,410 mcm) in storage. The modified unregulated inflow<sup>68</sup> to Navajo  
17 during water year 2024 was 0.564 maf (696 mcm), or 62 percent of average. At the end of the  
18 water year, Navajo storage was at 67 percent of live capacity at elevation 6,043.78 feet  
19 (1,842.14 meters), with 1.10 maf (1,360 mcm) resulting in a net decrease during water year  
20 2024 of 0.045 maf (55 mcm).

21  
22 Reservoir storage in Navajo peaked at an elevation of 6,054.02 feet (1,845.27 meters) on June  
23 20, 2024. This was 30.98 feet (9.44 meters) below full pool. The April through July modified  
24 unregulated inflow into Navajo Reservoir in water year 2024 was 0.420 maf (518 mcm), or 67  
25 percent of average.

26  
27 The San Juan Flow Recommendations,<sup>69</sup> completed by the SJRIP in May 1999 and updated in  
28 2018, provide flow recommendations that promote the recovery of the endangered CPM and  
29 razorback sucker, maintain important habitat for these two species as well as the other native  
30 species, and provide information for the evaluation of continued water development in the  
31 basin. In water year 2024, Navajo Reservoir operated under the Navajo Unit Record of  
32 Decision (ROD, 2006). Under the ROD, releases recommended by the SJRIP for recovery  
33 purposes are dependent on annual hydrology and available water may be recommended to be  
34 released as a spring peak release, an augmentation of existing target base flows, or for some  
35 other SJRIP purposes. The Flow Recommendations specify that the reservoir releases will be  
36 calculated to target an End of Water Year Storage Target elevation of 6,063.00 feet (1,848.00  
37 meters). The Flow Recommendations also specify a minimum elevation of 6,050.00 feet  
38 (1,844.04 meters) for the purposes of calculating water available to release as a spring peak  
39 release. All available water over this target, minus the water required for minimum releases and  
40 contracts, will be considered for release as a spring peak hydrograph if the SJRIP requests. The

---

<sup>68</sup> Modified unregulated inflow into Navajo Reservoir is calculated as the observed inflow adjusted for the San Juan Chama diversions and change in storage at Vallecito Reservoir.

<sup>69</sup> Flow Recommendations for the San Juan River, May 1999. Available online at:  
[https://www.fws.gov/southwest/sjrip/pdf/DOC\\_Flow\\_recommendations\\_San\\_Juan\\_River.pdf](https://www.fws.gov/southwest/sjrip/pdf/DOC_Flow_recommendations_San_Juan_River.pdf).

1 SJRIP prefers that the available water must equate to at least 21 days at 5,000 cfs (142 cms) to  
2 be released.

3  
4 Navajo Reservoir was operated in compliance with the ROD in 2024, including targeting the  
5 SJRIP's recommended base flows. The target base flow was calculated using the weekly  
6 average of gaged flows throughout the critical habitat area from Farmington to Lake Powell.  
7 Based on the SJRIP's recommendation for water year 2024, there was no recommended Spring  
8 Peak Release from Navajo Reservoir.

9  
10 During water year 2025, Navajo Reservoir will be operated in accordance with the 2006  
11 Navajo Reservoir ROD. Navajo Reservoir storage levels are expected to be near average in  
12 2025 under the most probable inflow forecast. Base releases from the reservoir will likely range  
13 from 250 cfs (7.07 cms) to 600 cfs (17.0 cms) through the winter. Based on the August 2024  
14 most probable April through July modified unregulated inflow forecast of X.XX maf (XXX  
15 mcm) in 2025, the August 2024 24-Month Study projects XXX spring peak release would be  
16 recommended by the SJRIP for water year 2025. The reservoir is projected to reach a peak  
17 elevation of XXX feet (XXX meters) in XXX. The reservoir is projected to reach a minimum  
18 elevation of XXX feet (XXX meters) in XXX.

19  
20 Under the minimum probable 2025 April through July inflow forecast of XXX maf (XXX  
21 mcm), there will be XXX spring peak release during the spring of 2025. Under the maximum  
22 probable 2025 April through July inflow forecast of XXX maf (XXX mcm), a XXX spring  
23 peak release is likely to be recommended by the SJRIP for water year 2025.

## 24 Lake Powell

25 Reservoir storage in Lake Powell increased during water year 2024. At the beginning of water  
26 year 2024, Lake Powell storage was 38 percent of live capacity at elevation 3,573.58 feet  
27 (1,089.23 meters), with 8.79 maf (10,840 mcm) in storage. The unregulated inflow to Lake  
28 Powell during water year 2024 was 7.79 maf (9,610 mcm) which is 81 percent of average. At  
29 the end of the water year, Lake Powell storage was at 39 percent of live capacity at elevation  
30 3,576.76 feet (1,090.02 meters), with 9.04 maf (11,150 mcm) resulting in a net increase during  
31 water year 2024 of 0.25 maf (310 mcm).

32  
33 The August 2023 24-Month Study was run to project the January 1, 2024, elevations of Lake  
34 Powell and Lake Mead and determine the water year 2024 operating tier for Lake Powell.  
35 Using the most probable inflow scenario, and with an 8.23 maf (10,150 mcm) annual release  
36 pattern for Lake Powell, the January 1, 2024, reservoir elevations of Lake Powell and Lake  
37 Mead were projected to be 3,568.57 feet (1,087.70 meters) and 1,070.57 feet (326.22 meters),  
38 respectively. Given these projections, the operating tier and annual release volume from Lake  
39 Powell during water year 2024 was consistent with the Mid-Elevation Release Tier (Section  
40 6.C.1 of the 2007 Interim Guidelines) Lower Elevation Balancing Tier (Section 6.D.1 of the  
41 2007 Interim Guidelines) and, under Section 6.CD.1, the annual release would be 7.48 maf  
42 (9,230 mcm). when the projected January 1 Lake Powell elevation is below 3,525.00 feet  
43 (1,074.42 meters), the Secretary shall balance the contents of Lake Mead and Lake Powell, but  
44 shall release not more than 9.50 maf (11,720 mcm) and not less than 7.00 maf (8,630 mcm)  
45 from Lake Powell in the water year. The operational neutrality of the 0.480 maf (592 mcm) that

1 was retained in Lake Powell under the May 2022 action was removed,<sup>70</sup> such that balancing  
2 releases in water year 2023 were based on physical contents of Lake Powell and Lake Mead,  
3 consistent with Section 6.D.1 of the 2007 Interim Guidelines, and to protect Lake Powell from  
4 declining below elevation 3,525.00 feet (1,074.42 meters) at the end of December 2023. After  
5 removal of operational neutrality, the 0.480 maf (592 mem) was released from Lake Powell in  
6 water year 2023. Per Section 6.D.1 of the 2007 Interim Guidelines, Lake Powell and Lake  
7 Mead contents were balanced as closely as practicable and the resulting water year 2023 release  
8 from Lake Powell was 8.58 maf (10,580 mem).<sup>71</sup>

9  
10 The April through July unregulated inflow to Lake Powell in water year 2024 was 5.10 maf  
11 (6,290 mem) which was 80 percent of average. During the 2024 April through July runoff  
12 period, Lake Powell's water surface elevation peaked on XX, 2024, at 3,583.26 feet (1,092.18  
13 meters), which was 116.74 feet (35.58 meters) below full pool. This elevation corresponds to a  
14 live storage content of 9.56 maf (11,790 mem).

15  
16 In water year 2024, Glen Canyon Dam was operated in compliance with the LTEMP ROD.

17  
18 ~~In April 2023, Reclamation conducted a spring flow experimental release from Glen Canyon  
19 Dam, consistent with the LTEMP and related compliance documents.<sup>72</sup> Reclamation released  
20 the maximum available capacity of 38,800 cfs (1,100 cms) during the experiment which was  
21 conducted beginning on April 24 and ending on April 27, 2023. Approximately 0.090 maf (111  
22 mem) was bypassed during the experiment. The total April 2023 monthly release and annual  
23 release from Glen Canyon Dam in water year 2023 did not change as a result of the  
24 experimental releases.~~

25  
26 On October 4, 2023, Reclamation published a Federal Register Notice indicating its intent to  
27 prepare a SEIS for the 2024 LTEMP SEIS ROD.<sup>73</sup> The 2024 LTEMP SEIS will analyze flow  
28 options to prevent smallmouth bass and other warm water invasive non-native fish from  
29 establishing below Glen Canyon Dam (by preventing additional spawning) and will analyze  
30 new information regarding the sediment accounting window associated with the LTEMP high-  
31 flow experiment protocol. Any changes to operations resulting from this NEPA process will  
32 affect hourly, daily, monthly, and experimental releases from Glen Canyon Dam; annual  
33 releases from Glen Canyon Dam will not be affected. The draft SEIS was published to the  
34 Federal Register on February 9, 2024, which started the 45-day public comment period that  
35 then closed on March 25, 2024.

36  

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<sup>70</sup> For more information: <https://www.usbr.gov/uc/DocLibrary/Plans/20220503-2022DROA-GlenCanyonDamOperationsDecisionLetter-508-DOI.pdf>.

<sup>71</sup> Lake Powell end of water year storage was 8.79 maf (10,840 mem). Lake Mead end of water year storage was 8.87 maf (10,940 mem).

<sup>72</sup> The decision memo regarding the spring flow experiment is available online at: <https://www.usbr.gov/uc/progact/amp/pdfs/LTEMP/20230420-Spring2023HFE-DecisionMemo-508-UCRO.pdf>

<sup>73</sup> Federal Register Notice available online at: <https://www.federalregister.gov/documents/2023/10/04/2023-22077/notice-of-intent-to-prepare-a-supplemental-environmental-impact-statement-for-the-december-2016>.

1 The ten-year total flow of the Colorado River at Lee Ferry<sup>74</sup> for water years 2015 through 2024  
2 is 82.13 maf (101,300 mcm). This total is computed as the sum of the flow of the Colorado  
3 River at Lees Ferry, Arizona, and the Paria River at Lees Ferry, Arizona, surface water  
4 discharge stations which are operated and maintained by the United States Geological Survey.  
5

6 **2025 Operating Tier and Projected Operations for Glen Canyon Dam.** The January 1, 2025  
7 reservoir elevations of Lake Powell and Lake Mead are projected under the most probable  
8 inflow scenario, with an 8.23 maf (10,150 mcm) release pattern in water year 2025, to be  
9 3,572.92 feet (1,089.03 meters) and 1,061.41 feet (323.52 meters), respectively, based on the  
10 August 2024 24-Month Study. Given these projections, the operating tier and annual release  
11 volume from Lake Powell during water year 2025 will be consistent with the **Mid-Elevation**  
12 **Release Tier (Section 6.C.1 of the 2007 Interim Guidelines and Section 6.E. of the 2024**  
13 **Interim Guidelines SEIS ROD)** and, under Section 6.C.1, the annual release would be 7.48 maf  
14 (9,230 mcm). ~~The Mid-Elevation Release Tier has no possibility for adjustments to the~~  
15 ~~operation of Lake Powell during the water year, unless otherwise prescribed under the 2007~~  
16 ~~Interim Guidelines and the 2024 Interim Guidelines SEIS ROD, and would remain at 7.48 maf~~  
17 ~~(9,230 mcm).~~  
18

19 Reclamation will continue to carefully monitor hydrologic and operational conditions and  
20 assess the need for additional responsive actions and/or changes to operations. Reclamation  
21 will continue to consult with the Basin States, Basin Tribes, the Republic of Mexico, and other  
22 partners on Colorado River operations to consider future protective measures for both Lake  
23 Powell and Lake Mead.  
24

25 Maintenance of the eight generating units at Glen Canyon Dam requires them to be taken out of  
26 service, in pairs, once each year for approximately one month. Additionally, in water years  
27 2020 through 2024, all four transformers ~~will be were~~ replaced, requiring the units to be taken  
28 out of service, in pairs. This work ~~should be completed on March 28, 2024, by the end of~~  
29 ~~calendar year 2024.~~ Reclamation is planning to perform maintenance on each of the four  
30 hollow jet valves in water year 2024, ~~which may be extended to water year 2025.~~ Outages for  
31 annual maintenance and unit replacements are coordinated between Reclamation offices in Salt  
32 Lake City, Utah, and Page, Arizona, and WAPA to minimize impacts to operations.  
33

34 Because of less than full storage conditions in Lake Powell resulting from drought in the  
35 Colorado River Basin, releases from Glen Canyon Dam for dam safety purposes are highly  
36 unlikely in 2025. If implemented, releases greater than powerplant capacity would be made  
37 consistent with the 1956 Colorado River Storage Project Act,<sup>75</sup> the CRBPA, the LTEMP ROD,  
38 and the Glen Canyon Dam Operating Criteria.  
39

40 Releases from Lake Powell in water year 2025 will continue to reflect consideration of the uses  
41 and purposes identified in the authorizing legislation for Glen Canyon Dam. Monthly releases  
42 will also be consistent with the LTEMP ROD and applicable Secretarial decisions and are  
43 updated to be consistent with annual volumes determined pursuant to the 2007 Interim  
44 Guidelines and the 2024 Interim Guidelines SEIS ROD.

<sup>74</sup> A point in the mainstream of the Colorado River one mile below the mouth of the Paria River.

<sup>75</sup> Available online at: <https://www.usbr.gov/lc/region/pao/pdfiles/crspuc.pdf>.

1 For the latest monthly projections for Lake Powell, please see the most recent 24-Month Study  
2 report available on Reclamation’s Upper Colorado Region Water Operations website:  
3 <https://www.usbr.gov/uc/water/crsp/studies/index.html>.

4  
5 Daily and hourly releases in 2025 will be made according to the parameters of the Glen Canyon  
6 Dam Operating Criteria. These parameters set the maximum and minimum flows and ramp  
7 rates within which reservoir releases must be made. Exceptions to these parameters will be  
8 made in accordance with the Emergency Exception Criteria as described in the Glen Canyon  
9 Dam Operating Criteria.

10  
11 During water year 2025, the Department of the Interior will coordinate planning for  
12 experimental flows from Glen Canyon Dam in accordance with the 2016 Glen Canyon Dam  
13 LTEMP ROD.

## 14 **Lake Mead**

15 For calendar year 2024, a Shortage Condition was the criterion governing the operation of Lake  
16 Mead in accordance with Article III(3)(c) of the Operating Criteria, Article II(B)(3) of the  
17 Consolidated Decree, Section 2.D.1.b of the 2007 Interim Guidelines, applicable provisions of  
18 the LB DCP Agreement, and Sections III.B.1.a and III.B.2.a of Exhibit 1 to the LB DCP  
19 Agreement, and taking into consideration water conservation efforts under the LB DCP  
20 Agreement, a December 15, 2021 MOU to facilitate near-term actions to maintain the water  
21 surface elevation at Lake Mead (the “500 Plus Plan”),<sup>76</sup> the LC Conservation Program, and  
22 Section 2.E of the 2007 Interim Guidelines as amended by the 2024 Interim Guidelines SEIS  
23 ROD. Delivery of water to Mexico was scheduled in accordance with Article 15 of the 1944  
24 United States-Mexico Treaty and Minutes No. 242, 323, 327, and 330 of the IBWC.

25  
26 Lake Mead began water year 2024 on October 1, 2023, at elevation 1,065.82 feet (324.86  
27 meters), with 8.87 maf (10,940 mcm) in storage, which is 34 percent of the conservation  
28 capacity<sup>77</sup> of 26.12 maf (32,220 mcm). Lake Mead ended water year 2024 at elevation 1,060.77  
29 feet (323.32 meters) with 8.48 maf (10,460 mcm) in storage (32 percent of capacity) on  
30 September 30, 2024.

31  
32 The total release from Lake Mead through Hoover Dam during water year 2024 was 7.93 maf  
33 (9,780 mcm). The total release from Lake Mead through Hoover Dam during calendar year  
34 2024 is projected to be 8.10 maf (9,990 mcm).

35  
36 The total inflow into Lake Mead is a combination of water released from Glen Canyon Dam  
37 plus inflows in the reach between Glen Canyon and Hoover Dams. In water year 2024, inflow  
38 into Lake Mead was 8.24 maf (10,160 mcm), consisting of 7.48 maf (9,230 mcm) of water  
39 released from Glen Canyon Dam and 0.761 maf (939 mcm) of inflows between Glen Canyon

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<sup>76</sup> Available online at: [https://www.usbr.gov/lc/region/g4000/2021\\_MOU.pdf](https://www.usbr.gov/lc/region/g4000/2021_MOU.pdf).

<sup>77</sup> Conservation capacity is the amount of space available for water storage between Lake Mead’s water surface elevations 895.00 feet (272.80 meters) and 1,219.64 feet (371.75 meters), the start of the exclusive flood control space as defined in the Field Working Agreement Between Department of the Interior, Bureau of Reclamation and Department of the Army, Corps of Engineers for Flood Control of Hoover Dam and Lake Mead, Colorado River, Nevada-Arizona, February 8, 1984.



1 and Hoover Dams. For water year 2025, under the most probable inflow scenario, total inflow  
2 into Lake Mead is projected to be 8.38 maf (10,340 mcm).

3  
4 Based on the August 2024 24-Month Study, Lake Mead’s elevation on January 1, 2025 is  
5 projected to be 1,061.41 feet (323.52 meters). In accordance with Section 2.D.1 of the 2007  
6 Interim Guidelines and the applicable provisions of the LB DCP Agreement, a Shortage  
7 Condition, consistent with Section 2.D.1.a of the 2007 Interim Guidelines, as well as Sections  
8 III.B.1.a and III.B.2.a of Exhibit 1 to the LB DCP Agreement, respectively, will govern the  
9 releases and diversions from Lake Mead in calendar year 2025. Releases from Lake Mead  
10 through Hoover Dam may also be adjusted for the creation and/or delivery of ICS, consistent  
11 with Section 3 of the 2007 Interim Guidelines and Sections III and IV of Exhibit 1 to the LB  
12 DCP Agreement, in calendar year 2025. In calendar year 2025, reservoir protection  
13 conservation will be implemented consistent with Section 2.E of the 2007 Interim Guidelines as  
14 amended in the 2024 Interim Guidelines SEIS ROD.

15  
16 Under the most probable inflow scenario, Lake Mead is projected to end water year 2025 at  
17 elevation 1,052.93 feet (320.93 meters), with 7.90 maf (9,740 mcm) in storage (30 percent of  
18 capacity). Following the end of the water year, Lake Mead is projected to rise to elevation  
19 1,059.62 feet (322.97 meters) with 8.39 maf (10,350 mcm) in storage (32 percent of capacity)  
20 at the end of calendar year 2025. The total release from Lake Mead through Hoover Dam  
21 during water year 2025 is projected to be 8.32 maf (10,260 mcm). The total release from Lake  
22 Mead through Hoover Dam during calendar year 2025 is projected to be 8.27 maf (10,200  
23 mcm).

24  
25 For the latest monthly projections for Lake Mead, please see the most recent 24-Month Study  
26 report available on Reclamation’s Lower Colorado Region Water Operations website:  
27 <https://www.usbr.gov/lc/region/g4000/riverops/coriver-projections.html>.

## 28 **Lake Mohave and Lake Havasu**

29 Lake Mohave started water year 2024 at an elevation of 638.85 feet (194.72 meters) with 1.59  
30 maf (1,960 mcm) in storage. The water level of Lake Mohave was regulated between elevation  
31 635.96 feet (193.84 meters) and 643.00 feet (195.99 meters) during the water year, ending at an  
32 elevation of 640.01 feet (195.08 meters), with 1.62 maf (2,000 mcm) in storage. During water  
33 year 2024, 7.64 maf (9,420 mcm) was released from Davis Dam. The calendar year 2024 total  
34 release is projected to be 7.86 maf (9,700 mcm).

35  
36 For water and calendar years 2025, Davis Dam is projected to release nearly the same amount  
37 of water as in 2024, less any reductions in deliveries and adjustments for the creation and/or  
38 delivery of ICS and reservoir protection conservation actions. The water level in Lake Mohave  
39 will be regulated between an elevation of approximately 633.00 feet (192.94 meters) and  
40 645.00 feet (196.60 meters).

41  
42 Lake Havasu started water year 2024 at an elevation of 448.12 feet (136.59 meters) with 0.582  
43 maf (718 mcm) in storage. The water level of Lake Havasu was regulated between elevation  
44 446.99 feet (136.24 meters) and 448.50 feet (136.70 meters) during the water year, ending at an  
45 elevation of 447.50 feet (136.40 meters), with 0.570 maf (703 mcm) in storage. During water



1 year 2024, 5.83 maf (7,190 mcm) was released from Parker Dam. The calendar year 2024 total  
2 release is projected to be 5.94 maf (7,330 mcm).

3  
4 For water and calendar years 2025, Parker Dam is expected to release nearly the same amount  
5 of water as in 2024, less any reductions in deliveries and adjustments for the creation and/or  
6 delivery of ICS and reservoir protection conservation actions. The water level in Lake Havasu  
7 will be regulated between an elevation of approximately 446.00 feet (135.94 meters) and  
8 450.00 feet (137.16 meters).

9  
10 Lakes Mohave and Havasu are scheduled to be drawn down in the late summer and fall months  
11 to provide storage space for local storm runoff and will be filled in the winter to meet higher  
12 summer water needs. This drawdown also corresponds with normal maintenance at both Davis  
13 and Parker powerplants scheduled for October through May.

### 14 **Bill Williams River**

15 Alamo Lake elevation and storage decreased during water year 2024. Alamo Lake started water  
16 year 2024 at elevation 1,126.02 feet (343.21 meters) with 0.143 maf (176 mcm) in storage and  
17 ended water year 2024 at elevation 1,124.10 feet (342.63 meters) with 0.136 maf (167 mcm) in  
18 storage. In water year 2024, average daily releases from Alamo Lake were about 25 cfs (0.71  
19 cms). Water released from Alamo Lake totaled 0.022 maf (27 mcm) for water year 2024.

20  
21 ~~In coordination with Reclamation and the Bill Williams River Corridor Steering Committee,~~  
22 ~~the U.S. Army Corps of Engineers (USACE) released additional water to lower the elevation of~~  
23 ~~Alamo Lake after recent flooding events. The additional release began on March 20, 2023,~~  
24 ~~peaked at approximately 5,030 cfs (142 cms) on March 20, 2023. The USACE reduced the~~  
25 ~~release to approximately 900 cfs (25.5 cms) on March 24, 2023 and began gradually decreasing~~  
26 ~~the release to 300 cfs (8.49 cms) which they reached on May 15, 2023 and maintained until the~~  
27 ~~completion of the release on June 14, 2023. Approximately 0.134 maf (165 mcm) of water was~~  
28 ~~released from Alamo Lake from March 20 through June 14, 2023. Of this volume,~~  
29 ~~approximately 0.108 maf (133 mcm) reached Lake Havasu.~~

30  
31 ~~Other than the period noted above, average daily releases from Alamo Lake in water year 2023~~  
32 ~~were about 25 cfs (0.71 cms). Water released from Alamo Lake totaled 0.147 maf (181 mcm)~~  
33 ~~for water year 2023.~~

### 34 **Senator Wash and Laguna Reservoirs**

35 Senator Wash Reservoir is an off-stream regulating storage facility below Parker Dam  
36 (approximately 142 river miles downstream) and has a storage capacity of 0.014 maf (17 mcm)  
37 at full pool elevation of 251.00 feet (76.50 meters). The reservoir is used to store excess flows  
38 from the river caused by water user cutbacks, side wash inflows due to rain, and other factors.  
39 Stored waters are utilized to meet the water demands in Arizona and California and the delivery  
40 obligation to Mexico.

41  
42 Since 1992, elevation restrictions have been in place on Senator Wash Reservoir due to  
43 potential piping and liquefaction of foundation and embankment materials at Xanyō Xamshré  
44 Dike and Senator Wash Dam. Senator Wash Reservoir is restricted to an elevation of 240.00

1 feet (73.15 meters) with 0.0090 maf (11 mcm) of storage, a loss of about 0.0050 maf (6.2 mcm)  
2 of storage from its original capacity. Whenever Senator Wash Reservoir exceeds an elevation  
3 of 237.00 feet (72.24 meters) Reclamation must conduct a visual inspection report. This  
4 reservoir restriction is expected to continue through 2025.

5  
6 Laguna Reservoir is a regulating storage facility located approximately five river miles  
7 downstream of Imperial Dam and is primarily used to capture sluicing flows from Imperial  
8 Dam. The storage capability of Laguna Reservoir has diminished from about 0.0015 maf (1.9  
9 mcm) to approximately 0.0004 maf (0.5 mcm) due to sediment accumulation and vegetation  
10 growth. Sediment accumulation in the reservoir has occurred primarily due to flood releases  
11 that occurred in 1983 and 1984, and flood control or space building releases that occurred  
12 between 1985 and 1988 and from 1997 through 1999.

13  
14 Sediment removal at Laguna Reservoir to reestablish operational sluicing began in 2013;  
15 however, the project was put on hold until a dredging project at Imperial Dam is completed.  
16 The revised estimated completion date is after 2025. In total, the Laguna Basin Dredging  
17 project will dredge approximately 3.55 million cubic yards (2.7 mcm) of sediment,  
18 reestablishing 140 acres (0.57 square kilometers) of open water. As of April 2024,  
19 approximately 2.72 million cubic yards (2.1 mcm) of material have been removed. All dredged  
20 material has been disposed of in a designated area adjacent to the project site. The project has  
21 incorporated the use of both land-based and waterborne heavy equipment. The project permit  
22 was obtained from the United States Army Corps of Engineers (USACE) in May 2013 and was  
23 valid through May 2020. The project permit from the USACE may be extended after the  
24 completion of the Imperial Dam dredging project.

## 25 **Imperial Dam**

26 Imperial Dam is the last major diversion dam on the Colorado River in the United States. From  
27 the head works at Imperial Dam, water is diverted into the All-American Canal on the  
28 California side of the dam and into the Gila Gravity Main Canal on the Arizona side of the  
29 dam. These diversions provide water to the Gila Project, the Yuma Project, the Imperial  
30 Irrigation District (IID), the Coachella Valley Water District, and the City of Yuma, and  
31 through Siphon Drop and Pilot Knob to the Northerly International Boundary (NIB) for  
32 diversion at Morelos Dam by Mexico. Flows arriving at Imperial Dam for calendar year 2024  
33 are projected to be 5.53 maf (6,820 mcm). The flows arriving at Imperial Dam for calendar  
34 year 2025 are projected to be 5.30 maf (6,540 mcm).

35  
36 Reclamation started a dredging project above Imperial Dam in March 2021. The purpose of this  
37 project is to remove sediment deposited immediately upstream of Imperial Dam that threatens  
38 to constrict and/or prevent the operation of Imperial Dam facilities. Large amounts of sediment  
39 deposits are detrimental to Imperial Dam water operations. Excessive sediment build up in the  
40 reservoir limits reservoir storage capacity and can impede gate operations. Periodic removal of  
41 sediment is necessary to allow delivery of water to the Gila Gravity Main Canal and the All-  
42 American canal. This project has been extended to remove an additional 0.300 million cubic  
43 yards (0.230 mcm) and is scheduled to be completed in October 1, 2025. As of May 2024,  
44 approximately 1.34 million cubic yards (1.024 mcm) of material have been removed. The  
45 project permit was obtained from the USACE and is valid through 2025.

## 1 Gila River Flows

2 During water year 2024, there was above median snowfall in the Gila River Basin, including  
3 the Salt and Verde River watersheds. The Salt River Project did not release water from its  
4 system in excess of diversion requirements at Granite Reef Diversion Dam in water year 2024.  
5 ~~between March 2, 2023, and May 12, 2023. No water reached or was released from Painted~~  
6 ~~Rock Dam by the USACE in water year 2024. between March 22, 2023, and June 9, 2023.~~  
7 ~~Reclamation staff coordinated the operation of Painted Rock Dam with the U.S. Army Corps of~~  
8 ~~Engineers such that the releases could be put to beneficial use at the confluence with the~~  
9 ~~Colorado River. Approximately 0.329 maf (406 mcm) was released from Painted Rock Dam in~~  
10 ~~water year 2023. Approximately 0.087 maf (107 mcm) reached the USGS gage at Dome, AZ~~  
11 ~~and entered the Colorado River above the Northern International Boundary. Water arriving at~~  
12 ~~the confluence of the mainstream Colorado River was able to be delivered and fulfill Mexico's~~  
13 ~~water use schedule.~~

## 14 Warren H. Brock Reservoir

15 The Warren H. Brock (Brock) Reservoir is located near the All-American Canal in Imperial  
16 County, California. The purpose of the 0.0080 maf (9.9 mcm) Brock Reservoir is to reduce  
17 non-storable flows and to enhance beneficial use of Colorado River water within the United  
18 States. The reservoir reduces the impact of loss of water storage at Senator Wash due to  
19 operational restrictions and provides additional regulatory storage, allowing for more efficient  
20 management of water below Parker Dam. In 2021, Reclamation completed the Warren H.  
21 Brock Reservoir Conservation Summary Report which includes, among other matters, a  
22 summary of water conserved by Brock Reservoir from 2013 through 2019.<sup>78</sup> Water conserved  
23 by Brock Reservoir from 2020 through 2022 may be found in the respective annual Colorado  
24 River Accounting and Water Use Report, Arizona, California, and Nevada.<sup>79</sup>

## 25 Yuma Desalting Plant

26 The Yuma Desalting Plant (YDP) was authorized in 1974 under the Colorado River Basin  
27 Salinity Control Act (Public Law 93-320)<sup>80</sup> which authorized the federal government to  
28 construct the YDP to desalt the drainage flows from the Wellton-Mohawk Division of the Gila  
29 Project. This would allow the treated water to be delivered to Mexico as part of its 1944 United  
30 States-Mexico Water Treaty allotment. The United States has met salinity requirements  
31 established in IBWC Minute No. 242 primarily through use of a canal to bypass Wellton-  
32 Mohawk drain water to the Ciénega de Santa Clara, a wetland of open water, vegetation, and  
33 mudflats within a Biosphere Reserve in Mexico. In calendar year 2024, the amount of water  
34 discharged from the Wellton-Mohawk Division through the bypass canal is anticipated to be  
35 0.114 maf (140 mcm) measured at gaging station 0+00 and 0.118 maf (146 mcm) measured at  
36 the gaging station near the Southerly International Boundary (SIB), at an approximate  
37 concentration of total dissolved solids of 2,456 parts per million (ppm).

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<sup>78</sup> Available online at: <https://www.usbr.gov/lc/region/programs/strategies/agreements/BrockReport.pdf>.

<sup>79</sup> Available online at: <https://www.usbr.gov/lc/region/g4000/wtracct.html>.

<sup>80</sup> Available online at: <https://www.usbr.gov/lc/region/pao/pdfiles/crbsalct.pdf>.

## 1 Off-stream Storage Agreements

2 Colorado River water may be stored off-stream pursuant to individual SIRAs and 43 CFR Part  
3 414 within the Lower Division States. The Secretary shall make ICUA available to contractors  
4 in Arizona, California, or Nevada pursuant to individual SIRAs and 43 CFR Part 414. The  
5 Southern Nevada Water Authority (SNWA) may propose to make unused Nevada basic  
6 apportionment available for storage by the Metropolitan Water District of Southern California  
7 (MWD)<sup>81</sup> and/or Arizona Water Banking Authority (AWBA)<sup>82</sup> in calendar years 2024 and  
8 2025.

## 9 Intentionally Created Surplus

10 The 2007 Interim Guidelines included the adoption of the ICS mechanism that, among other  
11 things, encourages the efficient use and management of Colorado River water in the Lower  
12 Basin. ICS may be created through several types of activities that include improvements in  
13 system efficiency, extraordinary conservation, tributary conservation, and the importation of  
14 non-Colorado River System water into the Colorado River mainstream over the course of a  
15 calendar year. Several implementing agreements<sup>83</sup> were executed concurrent with the issuance  
16 of the ROD for the 2007 Interim Guidelines. The LB DCP Agreement, as authorized by Public  
17 Law 116-14 through the 2019 Colorado River DCP, expanded upon the ICS concept, including  
18 the execution of additional implementation agreements<sup>84</sup> and establishment of a DCP ICS  
19 category. ICS credits may be created and delivered in calendar years 2024 and 2025 pursuant to  
20 Section 3 of the 2007 Interim Guidelines, Sections III and IV of Exhibit 1 to the LB DCP  
21 Agreement, including the ICS accumulation limit as outlined in Section IV.C of Exhibit 1 to  
22 the LB DCP Agreement, and other applicable implementing agreements. ICS balances by state,  
23 user, and type of ICS may be found in the annual Water Accounting Report.

24  
25 IBWC Minute No. 323 identified cooperative measures that the United States and Mexico will  
26 take through December 31, 2026, including water conservation projects in Mexico. Consistent  
27 with Section IX.A of IBWC Minute No. 323, these water conservation projects will generate or  
28 conserve a volume of water of which 0.109 maf (135 mcm) will be converted to Binational ICS  
29 for use in the United States and 0.050 maf (62 mcm) will be allocated to the system for the  
30 benefit of all users.

31  
32 **Extraordinary Conservation ICS.** Entities with approved plans may create Extraordinary  
33 Conservation ICS in 2024 and/or 2025. Table 5 provides a summary of anticipated, submitted,

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<sup>81</sup> Storage and Interstate Release Agreement among The United States of America, acting through the Secretary of the Interior; The Metropolitan Water District of Southern California; the Southern Nevada Water Authority; and the Colorado River Commission of Nevada, October 21, 2004. Available online at: [https://www.usbr.gov/lc/region/g4000/contracts/SNWA\\_MWDSIRAFinal.pdf](https://www.usbr.gov/lc/region/g4000/contracts/SNWA_MWDSIRAFinal.pdf).

<sup>82</sup> Storage and Interstate Release Agreement among The United States of America, acting through the Secretary of the Interior; The Arizona Water Banking Authority; the Southern Nevada Water Authority; and the Colorado River Commission of Nevada, December 18, 2002. Available online at: <https://www.usbr.gov/lc/region/g4000/contracts/SIRAFinal.pdf>.

<sup>83</sup> Information on forbearance and delivery agreements related to the creation and delivery of ICS can be found at: <https://www.usbr.gov/lc/region/programs/strategies/documents.html>.

<sup>84</sup> Information on the agreements related to the creation of ICS under the LB DCP Agreement can be found at: <https://www.usbr.gov/lc/region/programs/dcp.html>.

1 or approved Extraordinary Conservation ICS plans of creation in 2024 and 2025. Entities with  
 2 available Extraordinary Conservation ICS may request delivery of ICS credits in 2024 and  
 3 2025.<sup>85</sup>

4 **Table 5. Summary of Extraordinary Conservation ICS Plans of Creation**  
 5 **in Calendar Years 2024 and 2025**

| Entity | 2024 Plan of Creation        | Status of 2024 Plan | 2025 Plan of Creation        | Status of 2025 Plan |
|--------|------------------------------|---------------------|------------------------------|---------------------|
| CAWCD  | up to 0.100 maf<br>(123 mcm) | approved            | up to X.XX maf<br>(X.XX mcm) | anticipated         |
| IID    | up to 0.062 maf<br>(76 mcm)  | approved            | up to X.XX maf<br>(X.XX mcm) | anticipated         |
| MWD    | up to 0.450 maf<br>(555 mcm) | approved            | up to X.XX maf<br>(X.XX mcm) | anticipated         |
| SNWA   | up to 0.100 maf<br>(123 mcm) | approved            | up to X.XX maf<br>(X.XX mcm) | anticipated         |

6  
 7 **System Efficiency ICS.** In 2024 and 2025, the Central Arizona Water Conservation District  
 8 (CAWCD), MWD, and SNWA may request delivery of Brock Reservoir System Efficiency  
 9 ICS credits. The annual maximum delivery of Brock Reservoir System Efficiency ICS is 0.065  
 10 maf (80 mcm). In 2024 and 2025, CAWCD, MWD, and SNWA may request delivery of YDP  
 11 Pilot Run System Efficiency ICS credits.

12  
 13 **Tributary Conservation ICS.** SNWA has an approved plan to create up to 0.044 maf (54  
 14 mcm) of Tributary Conservation ICS in 2024 and ~~is anticipated to submit~~ ~~has submitted~~ a plan  
 15 to create up to 0.044 maf (54 mcm) in 2025. Any Tributary Conservation ICS not delivered for  
 16 use by SNWA in the calendar year created will, at the beginning of the following year, be  
 17 converted to Extraordinary Conservation ICS pursuant to the 2007 Interim Guidelines.

18  
 19 **Imported ICS.** SNWA may submit plans to create Imported ICS in 2024 and 2025. Any  
 20 Imported ICS not delivered for use by SNWA in the calendar year created will, at the  
 21 beginning of the following year, be converted to Extraordinary Conservation ICS pursuant to  
 22 the 2007 Interim Guidelines.

23  
 24 **Binational ICS.** In 2024 and 2025, CAWCD, IID, MWD, and SNWA may request delivery of  
 25 Binational ICS subject to any applicable provisions in the delivery agreements.  
 26

<sup>85</sup> The ICS delivery volumes will be reflected in Reclamation’s Water Accounting Report. The Water Accounting Report is available online at: <https://www.usbr.gov/lc/region/g4000/wtracct.html>.



1 **DCP ICS.** DCP ICS may be created in 2024 and 2025 by entities making DCP contributions  
2 consistent with Section III of Exhibit 1 to the LB DCP Agreement. Following creation, DCP  
3 ICS may be delivered in a subsequent year in accordance with Section III.F of Exhibit 1 to the  
4 LB DCP Agreement.

## 5 **Delivery of Water to Mexico**

6 **2024 Operations.** Delivery of water to Mexico pursuant to the 1944 United States-Mexico  
7 Water Treaty and IBWC Minute No. 323 is anticipated to be 1.383 maf (1,700 mcm) in  
8 calendar year 2024. This volume reflects a shortage reduction of 0.070 maf (86 mcm) pursuant  
9 to Section III.A of IBWC Minute No. 323, recoverable water savings of 0.030 maf (37 mcm) as  
10 required by Mexico under Section IV of IBWC Minute No. 323, and the creation of  
11 approximately 0.017 maf (21 mcm) of water for Mexico’s Water Reserve pursuant to Section V  
12 of IBWC Minute No. 323, of which 0.004 maf (4.9 mcm) originated from water savings  
13 contributions. The water savings contribution volume shall be accounted for as described in the  
14 Joint Report of the Principal Engineers with the Implementing Details of the Binational Water  
15 Scarcity Contingency Plan in the Colorado River Basin (2019 Joint Engineers’ Report)<sup>86</sup> and  
16 the Joint Report of the Principal Engineers with the Operational Provisions Applicable to Water  
17 for the Environment Stipulated in Minute 323 (2021 Joint Engineers’ Report).<sup>87</sup> Balances of  
18 Mexico’s Water Reserve in previous years may be found in the annual Colorado River  
19 Accounting and Water Use Report, Arizona, California, and Nevada.<sup>88</sup>

20  
21 Of the scheduled delivery to Mexico in calendar year 2024, approximately 1.243 maf (1,530  
22 mcm) is projected to be delivered at NIB and approximately 0.140 maf (173 mcm) is projected  
23 to be delivered at SIB. Under IBWC Minute No. 327 and the Emergency Delivery  
24 Agreement,<sup>89</sup> Mexico, through the IBWC, may request water to be delivered to Tijuana, Baja  
25 California, through MWD, the San Diego County Water Authority, and the Otay Water  
26 District’s respective distribution system facilities in California. In calendar year 2024,  
27 approximately 2,961 acre-feet (3.7 mcm) is scheduled to be delivered to Tijuana, Baja  
28 California.

29  
30 Of the total delivery at SIB projected in calendar year 2024, approximately 0.081 maf (100  
31 mcm) is projected to be delivered from the Yuma Project Main Drain. No water is expected to  
32 be delivered by the Protective and Regulatory Pumping Unit (242 well field) in calendar year  
33 2024.

34  
35 Excess flows arriving at the NIB are anticipated to be approximately 0.036 maf (44 mcm) in  
36 calendar year 2024. Excess flows result from a combination of factors, including heavy rain

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<sup>86</sup> Joint Report of the Principal Engineers with the Implementing Details of the Binational Water Scarcity Contingency Plan in the Colorado River Basin. Available online at: [https://ibwc.azurewebsites.net/wp-content/uploads/2023/04/Min323\\_joint\\_report\\_eng.pdf](https://ibwc.azurewebsites.net/wp-content/uploads/2023/04/Min323_joint_report_eng.pdf).

<sup>87</sup> Joint Report of the Principal Engineers with the Operational Provisions Applicable to Water for the Environment Stipulated in Minute 323. Available online at: [https://www.ibwc.gov/wp-content/uploads/2023/04/Min323\\_joint\\_report\\_eng.pdf](https://www.ibwc.gov/wp-content/uploads/2023/04/Min323_joint_report_eng.pdf).

<sup>88</sup> Available online at: <https://www.usbr.gov/lc/region/g4000/wtracct.html>.

<sup>89</sup> Agreement for Temporary Emergency Delivery of a Portion of the Mexican Treaty Waters of the Colorado River to the International Boundary in the Vicinity of Tijuana, Baja California, Mexico, and for Operation of Facilities in the United States, dated February 8, 2022.



1 from seasonal storms, water ordered but not delivered to United States users downstream of  
2 Parker Dam, inflows into the Colorado River below Parker Dam, releases from Painted Rock  
3 Dam, and spills from irrigation facilities below Imperial Dam.  
4

5 **2025 Operations.** Pursuant to the 1944 United States-Mexico Water Treaty and Section III.A  
6 of IBWC Minute No. 323, a volume of 1.45 maf (1,790 mcm) will be available to be scheduled  
7 for delivery to Mexico in calendar year 2025. This volume may be further adjusted for water  
8 savings contributions as required under Section IV of IBWC Minute No. 323 and system water  
9 and Mexico’s Water Reserve conservation as required under Resolutions 1 and 2 of IBWC  
10 Minute No. 330. Mexico may create water for or take delivery of water from Mexico’s Water  
11 Reserve pursuant Mexico may create water for or take delivery of water from Mexico’s Water  
12 Reserve pursuant to Section III.C and Section V of IBWC Minute No. 323 323 and Resolution  
13 3 of IBWC Minute No. 330. Approximately 0.140 maf (173 mcm) is projected to be delivered  
14 at SIB and the remainder of the water to be scheduled for delivery to Mexico in 2025 will be  
15 delivered at NIB. Under IBWC Minute No. 327 and the Emergency Delivery Agreement, water  
16 may be delivered to Tijuana through MWD, the San Diego County Water Authority, and the  
17 Otay Water District’s respective distribution system facilities in California.  
18

19 Drainage flows to the Colorado River from the South Gila Drain Pump Outlet Channels and the  
20 Yuma Mesa Conduit are projected to be 0.029 maf (36 mcm) and 0.012 maf (15 mcm),  
21 respectively, for calendar year 2024. Consistent with Articles 11 and 15 of the 1944 United  
22 States-Mexico Water Treaty and IBWC Minute No. 242, this water is available for delivery at  
23 NIB in satisfaction of the 1944 United States-Mexico Water Treaty.  
24

25 As stated in IBWC Minute No. 242, water delivered to Mexico upstream of Morelos Dam shall  
26 have an annual average salinity of no more than 115 ppm ± 30 ppm United States’ count (121  
27 ppm ± 30 ppm Mexican count) over the annual average salinity of Colorado River waters  
28 which arrive at Imperial Dam. This difference, known as the salinity differential, is projected to  
29 be 140 ppm by the United States’ count for calendar year 2024.  
30

31 Mexico has identified four critical months for agriculture, September through December,  
32 regarding improving the quality of water delivered at SIB. Consistent with Section VI.B of  
33 IBWC Minute No. 323, the United States has improved the water quality delivered at the SIB  
34 to approximately 1,200 ppm during this four-month period.

## 2025 DETERMINATIONS

The AOP provides projections regarding reservoir storage and release conditions during the upcoming year, based upon Congressionally mandated and authorized storage, release, and delivery criteria and determinations. After meeting these criteria and determinations, specific reservoir releases may be modified within these requirements as forecasted inflows change in response to climatic variability and to provide additional benefits coincident to the projects' multiple purposes.

### Upper Basin

Section 602(a) of the CRBPA provides for the storage of Colorado River water in Upper Basin reservoirs and the release of water from Lake Powell that the Secretary finds reasonably necessary to assure deliveries to comply with Articles III(c), III(d), and III(e) of the 1922 Colorado River Compact without impairment to the annual consumptive use in the Upper Basin. The Operating Criteria provide that the annual plan of operation shall include a determination of the quantity of water considered necessary to be in Upper Basin storage at the end of the water year after taking into consideration all relevant factors including historic streamflow, the most critical period of record, the probabilities of water supply, and estimated future depletions. Water not required to be so stored will be released from Lake Powell:

- to the extent it can be reasonably applied in the States of the Lower Division to the uses specified in Article III(e) of the 1922 Colorado River Compact, but these releases will not be made when the active storage in Lake Powell is less than the active storage in Lake Mead
- to maintain, as nearly as practicable, active storage in Lake Mead equal to the active storage in Lake Powell
- to avoid anticipated spills from Lake Powell

Taking into consideration all relevant factors required by Section 602(a)(3) of the CRBPA and the Operating Criteria, it is determined that the active storage in Upper Basin reservoirs projected for September 30, 2025 under the most probable inflow scenario would be below the threshold required under Section 602(a) of the CRBPA.

Taking into account (1) the existing water storage conditions in the basin, (2) the August 2024 24-Month Study projection of the most probable near-term water supply conditions in the basin, and (3) Section 6.C.1 of the 2007 Interim Guidelines, the Mid-Elevation Release Tier will govern the operation of Lake Powell for water year 2025. The August 2024 24-Month Study of the most probable inflow scenario projects the water year 2025 release from Glen Canyon Dam to be 7.48 maf (9,230 mcm).

### Lower Basin

Pursuant to Article III of the Operating Criteria and consistent with the Consolidated Decree, water shall be released or pumped from Lake Mead to meet the following requirements:

- (a) 1944 United States-Mexico Water Treaty obligations;

- 1 (b) Reasonable beneficial consumptive use requirements of mainstream users in the Lower
- 2 Division States;
- 3 (c) Net river losses;
- 4 (d) Net reservoir losses;
- 5 (e) Regulatory wastes; and
- 6 (f) Flood control.

7  
8 The Operating Criteria provide that after the commencement of delivery of mainstream water  
9 by means of the Central Arizona Project, the Secretary will determine the extent to which the  
10 reasonable beneficial consumptive use requirements of mainstream users are met in the Lower  
11 Division States. Reasonable beneficial consumptive use requirements are met depending on  
12 whether a Normal, Surplus, or Shortage Condition has been determined. The Normal Condition  
13 is defined as annual pumping and release from Lake Mead sufficient to satisfy 7.50 maf (9,250  
14 mcm) of consumptive use in accordance with Article III(3)(a) of the Operating Criteria and  
15 Article II(B)(1) of the Consolidated Decree. The Surplus Condition is defined as annual  
16 pumping and release from Lake Mead sufficient to satisfy in excess of 7.50 maf (9,250 mcm)  
17 of consumptive use in accordance with Article III(3)(b) of the Operating Criteria and Article  
18 II(B)(2) of the Consolidated Decree. An ICS Surplus Condition is defined as a year in which  
19 Lake Mead's elevation is projected to be above elevation 1,075.00 feet (327.66 meters) on  
20 January 1, a Flood Control Surplus has not been determined, and delivery of ICS has been  
21 requested. The Secretary may determine an ICS Surplus Condition in lieu of a Normal  
22 Condition or in addition to other operating conditions that are based solely on the elevation of  
23 Lake Mead. The Shortage Condition is defined as annual pumping and release from Lake Mead  
24 insufficient to satisfy 7.50 maf (9,250 mcm) of consumptive use in accordance with Article  
25 III(3)(c) of the Operating Criteria and Article II(B)(3) of the Consolidated Decree.

26  
27 The 2007 Interim Guidelines and 2024 Interim Guidelines SEIS ROD are being utilized in  
28 calendar year 2025 and serve to implement the narrative provisions of Article III(3)(a), Article  
29 III(3)(b), and Article III(3)(c) of the Operating Criteria and Article II(B)(1), Article II(B)(2),  
30 and Article II(B)(3) of the Consolidated Decree for the period through 2026. The 2007 Interim  
31 Guidelines and 2024 Interim Guidelines SEIS ROD will be used annually by the Secretary to  
32 determine the quantity of water available for use within the Lower Division States.

33  
34 Consistent with the 2007 Interim Guidelines and the LB DCP Agreement, the August 2024 24-  
35 Month Study was used to forecast the system storage as of January 1, 2025. Based on a  
36 projected January 1, 2025 Lake Mead elevation of 1,061.41 feet (323.52 meters) and consistent  
37 with Section 2.D.1 of the 2007 Interim Guidelines, a Shortage Condition, consistent with  
38 Section 2.D.1.a, will govern releases for use in the states of Arizona, Nevada, and California  
39 during calendar year 2024 in accordance with Article III(3)(c) of the Operating Criteria and  
40 Article II(B)(3) of the Consolidated Decree. In addition, consistent with Sections III.B.1.a and  
41 III.B.2.a of Exhibit 1 to the LB DCP Agreement, DCP contributions will be required by  
42 Arizona and Nevada, respectively, in calendar year 2025. Water deliveries in the Lower Basin  
43 during calendar year 2025 will be limited to 7.167 maf (8,840 mcm) and will be further  
44 adjusted for DCP contributions and creation and/or delivery of ICS credits and/or DSS. In  
45 calendar year 2025, reservoir protection conservation will be implemented consistent with

1 Section 2.E of the 2007 Interim Guidelines as amended by the 2024 Interim Guidelines SEIS  
2 ROD.

3  
4 Article II(B)(6) of the Consolidated Decree allows the Secretary to allocate water that is  
5 apportioned to one Lower Division State but is for any reason unused in that state to another  
6 Lower Division State. This determination is made for one year only, and no rights to recurrent  
7 use of the water accrue to the state that receives the allocated water. No unused apportionment  
8 for calendar year 2024 is anticipated. If any unused apportionment becomes available after  
9 adoption of this AOP, Reclamation, on behalf of the Secretary, may allocate any such available  
10 unused apportionment for calendar year 2024 in accordance with Article II(B)(6) of the  
11 Consolidated Decree, the Unused Water Policy, and giving further consideration to the water  
12 conservation objectives of the July 30, 2014 agreement for the PSCP, the LC Conservation  
13 Program, as specified in Section 4.b of the LB DCP Agreement, and in accordance with Section  
14 2.E of the 2007 Interim Guidelines as amended by the 2024 Interim Guidelines SEIS ROD.

15  
16 In calendar year 2025, water may be stored off-stream pursuant to individual SIRAs and 43  
17 CFR Part 414 within the Lower Division States. The Secretary shall make ICUA available to  
18 contractors in Arizona, California, or Nevada pursuant to individual SIRAs and 43 CFR Part  
19 414. SNWA may propose to make unused Nevada basic apportionment available for storage by  
20 MWD and/or AWBA in calendar year 2025.

21  
22 The IOPP, which became effective January 1, 2004, will be in effect during calendar year 2025.  
23 In accordance with Section 2.6.e of the IOPP, further accumulation of inadvertent overruns in  
24 calendar year 2025 will be suspended. Payback balances by state and user may be found in the  
25 annual Colorado River Accounting and Water Use Report, Arizona, California, and Nevada.<sup>90</sup>

26  
27 In calendar year 2025, conserved Colorado River water, created through the PSCP, the LB  
28 DCP Agreement, the LC Conservation Program, and other voluntary agreements, is anticipated  
29 to be added to system reservoirs in the Lower Basin pursuant to system conservation  
30 agreements.

31  
32 The 2007 Interim Guidelines included the adoption of the ICS mechanism, which was  
33 expanded upon in the LB DCP Agreement, that among other things encourages the efficient use  
34 and management of Colorado River water in the Lower Basin. In calendar year 2025, ICS  
35 credits will be created and delivered pursuant to Section 3 of the 2007 Interim Guidelines,  
36 Sections III and IV of Exhibit 1 to the LB DCP Agreement, and appropriate forbearance and  
37 delivery agreements, and consistent with approved ICS plans of creation.

38  
39 Consistent with Section 4 of the 2007 Interim Guidelines, DSS may be created and delivered in  
40 calendar year 2025.

41  
42 Given the limitation of available supply and recent low inflow amounts within the Colorado  
43 River Basin, the Secretary, through Reclamation, will continue to review Lower Basin  
44 operations to assure that all deliveries and diversions of mainstream water are in strict  
45 accordance with the Consolidated Decree, applicable statutes, contracts, rules, and agreements.

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<sup>90</sup> Available online at: <https://www.usbr.gov/lc/region/g4000/wtracct.html>.

1 As provided in Section 7.C of the 2007 Interim Guidelines, the Secretary may undertake a mid-  
2 year review to consider revisions of the current AOP. For Lake Mead, the Secretary shall revise  
3 the determination in any mid-year review for the current year only to allow for additional  
4 deliveries from Lake Mead pursuant to Section 7.C of the 2007 Interim Guidelines.

### 5 **1944 United States-Mexico Water Treaty**

6 Under the minimum probable, most probable, and maximum probable inflow scenarios, water  
7 in excess of that required to supply uses in the United States and the guaranteed quantity of  
8 1,500 maf (1,850 mcm) allotted to Mexico will not be available, subject to any increased  
9 amounts delivered consistent with Section V of IBWC Minute No. 323. Vacant storage space in  
10 mainstream reservoirs is substantially greater than that required by flood control regulations.

11  
12 A volume of 1,450 maf (1,790 mcm) of water will be available to be scheduled for delivery to  
13 Mexico during calendar year 2025 subject to and in accordance with Article 15 of the 1944  
14 United States-Mexico Water Treaty, IBWC Minutes No. 242 and 327, and Section III.A of  
15 IBWC Minute No. 323. This volume may be further adjusted for water savings contributions as  
16 required under Section IV of IBWC Minute No. 323 and Resolutions 1 and 2 of IBWC Minute  
17 No. 330. In accordance with Section III.C and Section V of IBWC Minute No. 323 and  
18 Resolution 3 of IBWC Minute No. 330, Mexico may create water for or take delivery of water  
19 from Mexico's Water Reserve.

20  
21 Calendar year schedules of the monthly deliveries of Colorado River water are formulated by  
22 the Mexican Section of the IBWC and presented to the United States Section before the  
23 beginning of each calendar year. Changes to these delivery schedules are coordinated between  
24 the United States and Mexican Sections of the IBWC pursuant to Article 15 of the 1944 United  
25 States-Mexico Water Treaty and consistent with other applicable agreements.

1 **DISCLAIMER**

2 Nothing in this AOP is intended to interpret the provisions of the Colorado River Compact (45  
3 Stat. 1057); the Upper Colorado River Basin Compact (63 Stat. 31); the Utilization of Waters  
4 of the Colorado and Tijuana Rivers and of the Rio Grande, Treaty Between the United States of  
5 America and Mexico (Treaty Series 994, 59 Stat. 1219); the United States/Mexico agreements  
6 in Minute No. 242 of August 30, 1973 (Treaty Series 7708; 24 UST 1968), Minute No. 323 of  
7 September 21, 2017, Minute No. 327 of January 28, 2022, or Minute No. 330 of March 21,  
8 2024; the Consolidated Decree entered by the Supreme Court of the United States in *Arizona v.*  
9 *California* (547 U.S 150 (2006)); the Boulder Canyon Project Act (45 Stat. 1057; 43 U.S.C.  
10 617); the Boulder Canyon Project Adjustment Act (54 Stat. 774; 43 U.S.C. 618a); the Colorado  
11 River Storage Project Act (70 Stat. 105; 43 U.S.C. 620); the Colorado River Basin Project Act  
12 (82 Stat. 885; 43 U.S.C. 1501); the Colorado River Basin Salinity Control Act (88 Stat. 266; 43  
13 U.S.C. 1951); the Hoover Power Plant Act of 1984 (98 Stat. 1333); the Hoover Power  
14 Allocation Act of 2011 (125 Stat. 777); the Colorado River Floodway Protection Act (100 Stat.  
15 1129; 43 U.S.C. 1600); the Grand Canyon Protection Act of 1992 (Title XVIII of Public Law  
16 102-575, 106 Stat. 4669); the Decree Quantifying the Federal Reserved Right for Black  
17 Canyon of the Gunnison National Park (Case No. 01CW05, District Court, Colorado Water  
18 Division No. 4, 2008); the Colorado River Drought Contingency Plan Authorization Act  
19 (Public Law 116-14); or the rules, criteria, guidelines, and decisions referenced within this  
20 AOP.

DRAFT



# ACRONYMS AND ABBREVIATIONS

|  |   |
|--|---|
| 500 Plus Plan                          | Memorandum of Understanding (MOU) to maintain the elevation in Lake Mead, signed December 15, 2021  |
| 1944 United States-Mexico Water Treaty | Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, the Treaty Between the United States of America and Mexico, signed February 3, 1944 |
| 2019 Joint Engineers' Report           | Joint Report of the Principal Engineers with the Implementing Details of the Binational Water Scarcity Contingency Plan in the Colorado River Basin                 |
| 2021 Joint Engineers' Report           | Joint Report of the Principal Engineers with the Operational Provisions Applicable to Water for the Environment Stipulated in Minute 323                            |
| 2023 Plan                              | 2023 DROA Plan which spans from May 2023 through April 2024   |
| 2024 Interim Guidelines SEIS ROD       | Supplemental Environmental Impact Statement for Near Term Colorado River Operations Record of Decision  |
| 2024 LTEMP SEIS ROD                    | Glen Canyon Dam Long-Term Experimental and Management Plan Supplement Environmental Impact Statement and Record of Decision   |
| AMWG                                   | Glen Canyon Dam Adaptive Management Work Group  |
| AOP                                    | Annual Operating Plan   |
| AWBA                                   | Arizona Water Banking Authority   |
| Brock                                  | Warren H. Brock Reservoir   |
| CAWCD                                  | Central Arizona Water Conservation District   |
| CBRFC                                  | National Weather Service's Colorado Basin River Forecast Center   |
| CFR                                    | Code of Federal Regulations   |
| cfs                                    | cubic feet per second   |
| cms                                    | cubic meters per second   |
| Consolidated Decree                    | Consolidated Decree of the Supreme Court of the United States in <i>Arizona v. California</i> , 547 U.S. 150  |
| CPM                                    | Colorado pikeminnow   |
| CRBPA                                  | Colorado River Basin Project Act of 1968  |
| DCP                                    | Drought Contingency Plan  |
| DROA                                   | Drought Response Operations Agreement   |
| DSS                                    | Developed Shortage Supply   |
| FG-Ops                                 | Flaming Gorge Operation Plan  |
| IBWC                                   | International Boundary and Water Commission   |
| ICS                                    | Intentionally Created Surplus   |
| ICUA                                   | Intentionally Created Unused Apportionment  |
| IID                                    | Imperial Irrigation District  |
| IOPP                                   | Inadvertent Overrun and Payback Policy  |
| LB DCP Agreement                       | Lower Basin Drought Contingency Plan Agreement  |
| LC Conservation Program                | Lower Colorado River Basin System Conservation and Efficiency Program   |
| LTEMP                                  | Long-Term Experimental and Management Plan  |
| LTSP                                   | Larval Trigger Study Plan   |
| maf                                    | million acre-feet   |

|                         |   |
|-------------------------|---|
| mcm                     | million cubic meters  |
| MOU                     | Memorandum of Understanding   |
| MWD                     | The Metropolitan Water District of Southern California  |
| NEPA                    | National Environmental Policy Act   |
| NIB                     | Northerly International Boundary  |
| Operating Criteria      | Criteria for Coordinated Long-Range Operation of Colorado River Reservoirs Pursuant to the Colorado River Basin Project Act of September 30, 1968 |
| ppm                     | parts per million   |
| PSCP                    | Pilot System Conservation Program   |
| Reclamation             | Bureau of Reclamation   |
| ROD                     | Record of Decision  |
| Secretary               | Secretary of the U.S. Department of the Interior  |
| SEIS                    | Supplemental Environmental Impact Statement   |
| SCPP                    | System Conservation Pilot Program   |
| SIB                     | Southerly International Boundary  |
| SIRA                    | Storage and Interstate Release Agreement  |
| SJRIP                   | San Juan River Basin Recovery Implementation Program  |
| SMB                     | Smallmouth bass   |
| SNWA                    | Southern Nevada Water Authority   |
| UCRC                    | Upper Colorado River Commission   |
| UCRIP                   | Upper Colorado River Endangered Fish Recovery Program   |
| Unused Water Policy     | Lower Colorado Region Policy for Apportioned but Unused Water   |
| USACE                   | U.S. Army Corps of Engineers  |
| USFWS                   | U.S. Fish and Wildlife Service  |
| WAPA                    | Western Area Power Administration   |
| Water Accounting Report | Colorado River Accounting and Water Use Report, Arizona, California, and Nevada   |
| YDP                     | Yuma Desalting Plant  |

1