

February 24-Month Study
Date: February 14th 2023

From: Water Resources Group, Salt Lake City
To: All Colorado River Annual Operating Plan (AOP) Recipients

Current Reservoir Status

	January Inflow (unregulated) (acre-feet)	Percent of Average (percent)	February 13 Midnight Elevation (feet)	February 13, Midnight Reservoir Storage (acre-feet)
Fontenelle	32,300	106	6,478.87	152,644
Flaming Gorge	38,400	95	6,006.69	2,481,623
Blue Mesa	24,300	103	7,447.73	297,016
Navajo	20,100	100	6,017.51	844,163
Powell	361,100	107	3,522.16	5,382,885

Expected Operations

The operation of Lake Powell and Lake Mead in the February 2023 24-Month Study is pursuant to the December 2007 Record of Decision on Colorado River Interim Guidelines for Lower Basin Shortages and the Coordinated Operations of Lake Powell and Lake Mead (Interim Guidelines), and reflects the draft 2023 Annual Operating Plan (AOP). Pursuant to the Interim Guidelines, the August 2022 24-Month Study projections of the January 1, 2023, system storage and reservoir water surface elevations set the operational tier for the coordinated operation of Lake Powell and Lake Mead during 2023.

In light of the prolonged drought, low runoff conditions, and depleted storage at Lake Powell, the Department of the Interior implemented an action under Sections 6 and 7.D of the 2007 Interim Guidelines specifically reducing the Glen Canyon Dam annual releases to 7.00 million acre-feet (maf) in water year (WY) 2022.¹ This action was undertaken in conjunction with the 2022 Drought Response Operations Plan² (2022 Plan) actions which together are anticipated to add approximately one million additional acre-feet of storage to Lake Powell by April 2023. The Department of Interior and Reclamation will work to determine the manner in which to operate Glen Canyon Dam to ensure the benefits of these actions are preserved.

The 2022 Plan provisions to protect a target elevation at Lake Powell of 3,525 feet through adjusting Glen Canyon Dam monthly volume releases have been incorporated into the February 2023 24-Month Study and include an adjusted monthly release volume pattern for Glen Canyon Dam that will hold back a total of 0.523 maf in Lake Powell from December 2022 through April 2023. There are continued discussions when and how that same amount of water (0.523 maf) will be released later in the water year. The annual

¹ For more information: <https://www.usbr.gov/uc/DocLibrary/Plans/20220503-2022DROA-GlenCanyonDamOperationsDecisionLetter-508-DOI.pdf>.

² For more information: <https://www.usbr.gov/uc/DocLibrary/Plans/20220429-2022DroughtResponseOperationsPlan-ApprovalMemo-508-DOI.pdf>.

release volume from Lake Powell for WY 2023 will continue to be 7.00 maf, or higher, according to the provisions outlined below. If future projections indicate the monthly adjustments are insufficient to protect Powell's elevation, Reclamation will again consider additional water releases from the upstream initial units of the Colorado River Storage Project according to the provisions of the 2022 Plan.

The reduction of releases from Lake Powell from 7.48 maf to 7.00 maf in WY 2022 resulted in a reduced release volume of 0.480 maf that normally would have been released from Glen Canyon Dam to Lake Mead as part of the 7.48 maf annual release volume, consistent with routine operations under the 2007 Interim Guidelines. The reduction of releases from Glen Canyon Dam in WY 2022 (resulting in increased storage in Lake Powell) did not affect the operating determinations for 2023 and was accounted for "as if" this volume of water had been delivered to Lake Mead. The 24-Month Study will continue to model 2023 and 2024 operations at lakes Powell and Mead as if the 0.480 maf had been delivered to Lake Mead for operating condition purposes both for the U.S. Lower Basin and for Mexico unless otherwise determined through additional consultation and communication as described below. The elevations listed in this report reflect the projected physical elevations at each reservoir after implementing operations as described.

Using the approach described in the immediately preceding paragraph, the August 2022 24-Month Study projected the January 1, 2023, Lake Powell elevation to be less than 3,525 feet. Consistent with Section 6.D.1 of the Interim Guidelines, Lake Powell's operations in WY 2023 will be governed by the Lower Elevation Balancing Tier with an initial projected WY release volume of 7.00 maf. Because the 2022 operations were designed to protect critical elevations at Lake Powell, Reclamation will implement Lower Elevation Balancing Tier operations in a way that continues to protect these critical elevations, or preserves the benefits of the 2022 operations to protect Lake Powell, in WY 2023. Specifically, Reclamation modeled operations in WY 2023 as follows:

- The Glen Canyon Dam annual release has initially been set to 7.00 maf and in April 2023 Reclamation will evaluate hydrologic conditions to determine if balancing releases may be appropriate under the conditions established in the 2007 Interim Guidelines;
- Balancing releases will be limited (with a minimum of 7.00 maf) to protect Lake Powell from declining below elevation 3,525 feet at the end of December 2023;
- Balancing releases will take into account operational neutrality of the 0.480 maf that was retained in Lake Powell under the May 2022 action.¹ Any Lake Powell balancing release volume will be calculated as if the 0.480 maf had been delivered to Lake Mead in WY 2022; and
- The modeling approach for WY 2023 will apply to 2024.

Consistent with the operating approach described above, the February 2023 24-Month Study projects a WY release volume of 7.77 maf. Consistent with the provisions of the 2007 Interim Guidelines, and to preserve the benefits to Glen Canyon Dam facilities from 2022 Operations into 2023 and 2024, Reclamation will consult with the Basin States on monthly and annual operations. Reclamation will also ensure all appropriate consultations with Basin Tribes, the Republic of Mexico, other federal agencies, water users, and non-governmental organizations with respect to implementation of these monthly and annual operations.

Reclamation continues to consult with the Drought Response Operating Agreement Parties and the other Colorado River Basin States on the implementation of the Drought Response Operations Plans and potential consideration of 2023 Drought Response Operations. The results of these consultations and other factors may result in adjustments from what is presented in this 24-Month Study.

Reclamation will continue to carefully monitor hydrologic and operational conditions and assess the need for additional responsive actions and/or changes to operations. Reclamation will continue to consult with the Basin States, Basin Tribes, the Republic of Mexico, and other partners on Colorado River operations to consider and determine whether additional measures should be taken to further enhance the preservation of these benefits, as well as recovery protocols, including those of future protective measures for both Lakes Powell and Mead.

The August 2022 24-Month Study projected the January 1, 2023 Lake Mead elevation, determined as if the 0.480 maf had been delivered to Lake Mead in WY 2022, to be below 1,050 feet and above 1,045 feet. Consistent with Section 2.D.1 of the Interim Guidelines, a Shortage Condition consistent with Section 2.D.1.b will govern the operation of Lake Mead for Calendar Year (CY) 2023. In addition, Section III.B of Exhibit 1 to the Lower Basin Drought Contingency Plan (DCP) Agreement will govern the operation of Lake Mead for CY 2023. Efforts to conserve additional water in Lake Mead under a 2021 Lower Basin Memorandum of Understanding (MOU) to facilitate near-term actions to maintain the water surface elevation of Lake Mead will also take place in CY 2023.

The 2023 operational tier determinations for Lake Powell and Lake Mead will be documented in the 2023 AOP, which is currently in the final stages of development.

Current runoff projections into Lake Powell are provided by the National Weather Service's Colorado Basin River Forecast Center and are as follows. The observed unregulated inflow into Lake Powell for the month of January was 0.361 maf or 107 percent of the 30-year average from 1991 to 2020. The February 2023 unregulated inflow forecast for Lake Powell is 0.300 maf or 82 percent of the 30-year average. The 2023 April through July unregulated inflow forecast is 7.500 maf or 117 percent of average.

The draft 2023 AOP is available online at:

https://www.usbr.gov/uc/water/rsvrs/ops/aop/AOP23_draft.pdf.

The Interim Guidelines are available online at:

<https://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf>.

The Colorado River DCPs are available online at:

<https://www.usbr.gov/dcp/finaldocs.html>.

The 2021 Lower Basin MOU is available online at:

https://www.usbr.gov/lc/region/g4000/2021_MOU.pdf.

The Upper Basin DROA is online at:

<https://www.usbr.gov/dcp/droa.html>.

The Upper Basin Hydrology Summary is available online at:

https://www.usbr.gov/uc/water/crsp/studies/24Month_02_ucb.pdf.

Fontenelle Reservoir

As of February 5, 2023, the Fontenelle Reservoir pool elevation is 6480.59 feet, which amounts to 48 percent of live storage capacity. Inflows for the month of January totaled approximately 32,458 acre-feet (af) or 107 percent of average.

Winter release has been set at 950 cfs to meet spring elevation targets and are forecasted to remain at this level through winter, subject to hydrology. The winter release is planned to be maintained until March or April when the ice along the Green River begins to melt.

The February final forecast for unregulated inflows into Fontenelle for the next three months projects below average conditions. February, March, and April Most Probable inflow volumes amount to 26,000 af (93 percent of average), 45,000 af (79 percent of average), and 70,000 af (83 percent of average), respectively.

The next Fontenelle Working Group meeting is scheduled for April 27, 2023 at 10:00 a.m. at Green River, WY, tentatively. Details on the meeting will be provided as we get closer to the meeting date. Prior Fontenelle Working Group meeting minutes are available online on USBR's website at <https://www.usbr.gov/uc/water/crsp/wg/ft/ftcurrnt.html>. The Fontenelle Working Group is an open public forum for information exchange between Reclamation and other parties associated with the operation of Fontenelle Reservoir.

Flaming Gorge

As of February 6, 2023 (end of day), Flaming Gorge Reservoir pool elevation is 6006.93 feet, which amounts to 68 percent of live storage capacity. Unregulated inflow volume for the month of January is approximately 38,000 af, which is 94 percent of the average January unregulated inflow volume. The current average daily release is 1,760 cfs. A winter baseflow operation will continue until February 28, 2023.

Pursuant to the 2022 Plan, which was approved by the Upper Division States, the Upper Colorado River Commission, and the Department of the Interior, an additional 500 thousand acre-feet (kaf) will be delivered from Flaming Gorge Reservoir from May 2022 through April 2023 to Lake Powell. This volume was added to the spring periods by increasing the Larval Trigger Study Plan (LTSP) releases to 8600 cfs for 7 days, a 3-day smallmouth bass flow spike, as well as the summer-winter base flow period. The winter base flow will continue through February 28, 2023. This 2022 Plan will end on April 30, 2023. Under a Drought Response Operations Plan adopted in 2022, the total release volume at end of day (2/6) is ~421 kaf. The total release volume under this same plan in WY2022 is 193 kaf and CY2022 is 354 kaf. A new operation will be finalized in early May 2023, and this will contain an operation plan from May 2023 through April 2024.

Below is a description of the 2022 spring operation to determine summer, autumn and winter base flows (July 2022 through February 2023). The observed 2022 April through July unregulated inflow volume into Flaming Gorge Reservoir was 552,000 acre-feet (57 percent of average), a moderately dry hydrologic classification. Due to spring flows being greater than 14,000 cfs for more than 4 days in Reach 2, per the 2022 Plan, an average hydrologic operation was conducted for summer, autumn, and winter base flow.

The February forecast for unregulated inflows into Flaming Gorge for the next three months projects slightly below average. February, March, and April forecasted unregulated inflow volumes amount to 38,000 af (84 percent of average), 100,000 af (94 percent of average), and 120,000 af (96 percent of average), respectively.

Reclamation is planning to hold Flaming Gorge Working Group meetings in March and April similar to the last couple of years. The March meeting will be held on March 16, 2023 at 10 a.m. at the Uintah Conference Center Vernal, Utah (313 E 200 S, Vernal, Utah) and will be held virtually. The April meeting will be held on April 20, 2023 at 10:00 a.m. at the Carbon County Event Center Price, UT (450 S Fairgrounds Way, Price, Utah) and will be held virtually. The Flaming Gorge Working Group is an open public forum for information exchange between Reclamation and the stakeholders of Flaming Gorge Dam. The public is encouraged to attend and comment on the operations and plans presented by Reclamation at these meetings. Meeting notes from past Working Group meetings are posted on the Working Group webpage. For more information on this group and these meetings please contact Dale Hamilton at 801-379-1186.

Aspinall Unit Reservoirs

As of February 8, 2023, releases from Crystal Dam are approximately 346 cfs. Flows of the Gunnison River in the Black Canyon are being maintained at about 343 cfs while flows in the Whitewater Reach of the Gunnison River are about 770 cfs.

The unregulated inflow volume in November to Blue Mesa was 23,500 af (98 percent of average). Unregulated Inflow volumes forecasted for Blue Mesa for the next three months (February, March and April) are projected to be: 22,000 af (100 percent of average), 33,000 af (87 percent of average) and 70,000 af (99 percent of average), respectively. The February 24-Month Study will be reflective of these new forecasted inflows.

The forecasted 2023 water year unregulated inflow volume to Blue Mesa is projected to be 842,000 af (93 percent of average). The water supply period (April-July) for 2023 is forecasted to be 605,000 af of unregulated inflow (95 percent of average).

Blue Mesa elevation is currently increasing and as of February 8, 2022, was 7,447.58 feet above sea level corresponding to a live storage of 296,216 acre-feet which is 36 percent of capacity. By the end of water year 2023 (September 30, 2023) Blue Mesa elevation is projected to be 7,492.04 feet with about 593,600 acre-feet of storage which will be 72 percent of capacity.

The Aspinall Unit Operations Group is an open public forum for information exchange between Reclamation and the stakeholders of the Aspinall Unit. The public is encouraged to attend and comments on the operations and plans presented by Reclamation at these meetings. Meeting notes from past working Group meetings are posted on the Operations Group webpage. For more information on this group and these meetings please contact Erik Knight in the Grand Junction Area Office at (970) 248-0629.

The next Operations Group meeting will be held April 20, 2023 at 1:00 p.m., in person in Grand Junction Colorado and also broadcast virtually. The in-person meeting will be at Reclamation's Western Colorado Area Office located at 445 West Gunnison Avenue in Grand Junction, Colorado. Contact Erik Knight in the Grand Junction Area Office at (970) 248-0629 to get more information regarding this

Operation Group meeting.

Navajo Reservoir

On February 5th, the daily average release rate from Navajo Dam was 300 cfs while reservoir inflow was averaging 305 cfs. The water surface elevation was 6017.71 feet above sea level. At this elevation the live storage is 0.846 maf (51 percent of live storage capacity) and the active storage is 0.220 maf (22 percent of active storage capacity). No water is currently being diverted to the Navajo Indian Irrigation Project (NIIP) as they have shut down operations for the irrigation season. No water is being diverted to the San Juan-Chama Project (SJC) due to insufficient instream flows above Navajo.

Releases from Navajo Dam are made for authorized purposes of the Navajo Unit and are pursuant to the Record of Decision for the Navajo Reservoir Operations. Releases target the San Juan River Recovery Implementation Program's (SJRIIP) recommended downstream baseflow range of 500 cfs to 1,000 cfs through the critical habitat reach of the San Juan River (Farmington, NM to Lake Powell).

Preliminary modified unregulated inflow (MUI) into Navajo in January was 20.1 kaf, which was 100 percent of average for the month. The release averaged 320 cfs and totaled 19.7 kaf, which was 70 percent of average for the month.

The most probable inflow forecast for February, March, and April is 4 kaf (85 percent of average), 6 kaf (66 percent of average), and 20 kaf (85 percent of average), respectively.

The official April-July forecasts are as follows:

Min Probable: 150 kaf (85 percent of average, an increase of 22 kaf since the January Official Forecast)

Most Probable: 190 kaf (108 percent of average, an increase of 20 kaf since the January Official Forecast)

Max Probable: 255 kaf (144 percent of average, an increase of 15 kaf since the January Official Forecast)

The median forecast peak elevation at Navajo for spring of 2023 is 6050 ft.

Reclamation conducts Public Operations Meetings three times per year to gather input for determining upcoming operations for Navajo Reservoir. Input from individuals, organizations, and agencies along with other factors such as weather, water rights, endangered species requirements, flood control, hydro power, recreation, fish and wildlife management, and reservoir levels, will be considered in the development of these reservoir operation plans. In addition, the meetings are used to coordinate activities and exchange information among agencies, water users, and other interested parties concerning the San Juan River and Navajo Reservoir. The next meeting will be held on Tuesday, April 18th at 1:00 PM. This meeting is open to the public, and will be held at the Farmington Civic Center, 200 West Arrington, in Farmington, New Mexico (subject to change based on guidance at the time). The meeting will also have a virtual option.

Glen Canyon Dam / Lake Powell

Current Status

The reduction of releases from Lake Powell from 7.48 maf to 7.00 maf in water year 2022 will result in a reduced release volume of 0.480 maf that normally would have been released from Glen Canyon Dam to Lake Mead as part of the 7.48 maf annual release volume, consistent with operations under the 2007 Interim Guidelines. The reduction of releases from Glen Canyon Dam in water year 2022 (resulting in increased storage in Lake Powell) will not affect future operating determinations and will be accounted for

“as if” this volume of water had been delivered to Lake Mead. The August 2022 24-Month Study modeled 2023 and 2024 operations at Lakes Powell and Mead as if the 0.480 maf had been delivered to Lake Mead for operating tier/condition purposes both for the U.S. Lower Basin and for Mexico. The elevations listed in the August 2022 24-Month Study report reflected the projected physical elevations at each reservoir after implementing operations as described for water year 2023 tier determination purposes.

Using the approach described in the immediately preceding paragraph, the August 2022 24-Month Study projected the January 1, 2023, Lake Powell elevation to be less than 3,525 feet. Consistent with Section 6.D.1 of the Interim Guidelines, Lake Powell’s operations in water year 2023 are governed by the Lower Elevation Balancing Tier (LEBT) with an initial projected water year release volume of 7.00 maf. Because the 2022 operations were designed to protect critical elevations at Lake Powell, Reclamation will implement Lower Elevation Balancing Tier operations in a way that continues to protect these critical elevations or preserves the benefits of the 2022 operations to protect Lake Powell, in water year 2023. Specifically, Reclamation modeled operations in WY 2023 as follows in the August and September 24-Month Studies:

- The Glen Canyon Dam annual release has initially been set to 7.00 maf, and in April 2023 Reclamation will evaluate hydrologic conditions to determine if balancing releases may be appropriate under the conditions established in the 2007 Interim Guidelines;
- Balancing releases will be limited (with a minimum of 7.00 maf) to protect Lake Powell from declining below elevation 3,525 feet at the end of December 2023;
- Balancing releases will take into account operational neutrality of the 0.480 maf that was retained in Lake Powell under the May 2022 action ([May 3rd Letter](#)). Any Lake Powell balancing release volume will be calculated as if the 0.480 maf had been delivered to Lake Mead in WY 2022; and
- The modeling approach for WY 2023 will apply to 2024.

In accordance with the May 3rd Letter, consistent with the provisions of the 2007 Interim Guidelines, and to preserve the benefits to Glen Canyon Dam facilities from 2022 Operations into 2023 and 2024, Reclamation will consult with the Basin States on monthly and annual operations. Reclamation will also ensure all appropriate consultation with Basin Tribes, the Republic of Mexico, other federal agencies, water users and non-governmental organizations with respect to implementation of these monthly and annual operations.

Reclamation will continue to carefully monitor hydrologic and operational conditions and assess the need for additional responsive actions and/or changes to operations. Reclamation will continue to consult with the Basin States, Basin Tribes, the Republic of Mexico and other partners on Colorado River operations to consider and determine whether additional measures should be taken to further enhance the preservation of these benefits, as well as recovery protocols, including those of future protective measures for both Lakes Powell and Mead. For additional information, the news release can be found here:

<https://www.usbr.gov/newsroom/news-release/4294>.

The Bureau of Reclamation announced on May 3, 2022, two separate urgent drought response actions that will help prop up Lake Powell by nearly 1 maf of water over the next 12 months (May 2022 through April 2023). To protect Lake Powell, more water will flow into the lake from upstream reservoirs and less water will be released downstream:

- Under a Drought Contingency Plan adopted in 2019, approximately 500 kaf of water will come from Flaming Gorge Reservoir, located approximately 455 river miles upstream of Lake Powell.
- Another 480 kaf will be left in Lake Powell by reducing Glen Canyon Dam's annual release volume from 7.48 maf to 7.00 maf, as outlined in the 2007 Interim Guidelines that control operations of Glen Canyon Dam and Hoover Dam.

The plan can be found at the following website: <https://www.usbr.gov/dcp/droa.html>

For additional information, see the following news release: <https://www.usbr.gov/newsroom/#/news-release/4196>

The unregulated inflow volume to Lake Powell during January was 361 kaf (107 percent of average). The release volume from Glen Canyon Dam in January was 500 kaf. The end of January elevation and storage of Lake Powell were 3,523.45 feet (177 feet from full pool) and 5.45 maf (23 percent of live capacity), respectively.

Current Operations

Hourly releases during February 2023 will fluctuate from a low of approximately 5,797 cfs during the early morning hours to a high of 10,091 cfs during the afternoon and evening hours. The March 2023 releases are anticipated to fluctuate between a low of 5,276 cfs to a high of 9,641 cfs.

In addition to daily scheduled fluctuations for power generation, the instantaneous releases from Glen Canyon Dam may also fluctuate to provide 40 megawatts (MW) of system regulation. These instantaneous release adjustments stabilize the electrical generation and transmission system and translate to a range of about 1,300 cfs above or below the hourly scheduled release rate. Under normal system conditions, fluctuations for regulation are typically short lived and generally balance out over the hour with minimal or no noticeable impacts on downstream river flow conditions.

Releases from Glen Canyon Dam can also fluctuate beyond scheduled releases when called upon to respond to unscheduled power outages or power system emergencies. Depending on the severity of the system emergency, the response from Glen Canyon Dam can be significant, within the full range of the operating capacity of the power plant for as long as is necessary to maintain balance in the transmission system. Glen Canyon Dam currently maintains 30 MW (approximately 1,300 cfs) of generation capacity in reserve in order to respond to a system emergency even when generation rates are already high. System emergencies occur infrequently and typically require small responses from Glen Canyon Dam. However, these responses can have a noticeable impact on the river downstream of Glen Canyon Dam.

Inflow Forecasts and Model Projections

The forecast for water year 2023 unregulated inflow to Lake Powell, issued on February 3, 2023, by the Colorado Basin River Forecast Center, projects that the most probable (median) unregulated inflow volume in water year 2023 will be 10.44 maf (109 percent of average).

In addition to the February 2023 24-Month Study based on the Most Probable inflow scenario, and in accordance with the Upper Basin Drought Response Operations Agreement (DROA), Reclamation has conducted model runs in February to determine a possible range of reservoir elevations. The January 2023 24-Month Study probable maximum and the February 2023 24-Month Study probable minimum inflow scenarios were used to determine the range of probable outcomes. The probable minimum and probable maximum model runs are conducted simultaneously in January, April, August, and October, or when

necessary to incorporate changing conditions. The probable minimum inflow scenario reflects a dry hydrologic condition which statistically would be exceeded 90 percent of the time. The most probable inflow scenario reflects a median hydrologic condition which statistically would be exceeded 50 percent of the time. The probable maximum inflow scenario reflects a wet hydrologic condition which statistically would be exceeded 10 percent of the time. There is approximately an 80 percent probability that a future elevation will fall inside the range of the minimum and maximum inflow scenarios. Additionally, there are possible inflow scenarios that would result in reservoir elevations falling outside the ranges indicated in these reports.

The DROA coordination will continue until either (i) the minimum probable projected elevation remains above 3,525 feet for 24 months or (ii) the process moves to the next step when the most probable projected elevation indicates Powell elevations below 3,525 feet and a Drought Response Operations Plan is developed. This 2022 Plan is described above and available for review here: <https://www.usbr.gov/dcp/droa.html>.

The February forecast for water year 2023 ranges from a minimum probable of 8.37 maf (87 percent of average) to a January forecasted maximum probable of 14.93 maf (155 percent of average) with the most probable forecast for water year 2023 of 10.44 maf (109 percent of average). There is a 10 percent chance that inflows could be higher than the current maximum probable forecast and a 10 percent chance that inflows could be lower than the minimum probable forecast.

Based on the current forecast for water year 2023 of 10.44 maf unregulated, the February 24-Month Study projects Lake Powell elevation will end water year 2023 near 3555.45 feet with approximately 7.47 maf in storage (32 percent of capacity). Note that projections of elevation and storage for water year 2023 have significant uncertainty at this point in the season. Projections of end of water year 2023 elevation using the February minimum and January maximum inflow forecast results are 3,544.04 feet and 3,582.24 feet, respectively. The annual release volume from Lake Powell during water year 2023 will be 7.77 maf under the Lower Elevation Balancing Tier and will balance the contents between Powell and Mead with annual release volumes from Glen Canyon Dam between 7.00 maf and 9.50 maf as determined under Section 6.D.1 and 7.D of the Interim Guidelines as determined by the Department of the Interior as described above.

Upper Colorado River Basin Hydrology

Upper Colorado River Basin regularly experiences significant year to year hydrologic variability. The 30-year average was updated in October 2022 from 1981 through 2010 to 1991 through 2020. Shifting the period of record decreased the average unregulated inflow 1.20 maf. The period 2000-2022 is the lowest 23-year period since the closure of Glen Canyon Dam in 1963, with an average unregulated inflow of 8.29 maf, or 93 percent of the 30-year average (1991-2020). (For comparison, the 1991-2020 total water year average is 9.60 maf.) The unregulated inflow during the 2000-2022 period has ranged from a low of 2.64 maf (28 percent of average) in water year 2002 to a high of 15.97 maf (166 percent of average) in water year 2011. In water year 2021 unregulated inflow volume to Lake Powell was 3.50 maf (36 percent of average), the second driest year on record above 2002. Under the current most probable forecast, the total water year 2023 unregulated inflow to Lake Powell is projected to be 10.44 maf (109 percent of average).

At the beginning of water year 2023, total system storage in the Colorado River Basin was 19.54 maf (33 percent of 58.48 maf total system capacity). This is a decrease of 3.33 maf over the total storage at the beginning of water year 2022 when total system storage was 22.87 maf (39 percent of capacity). Since the

beginning of water year 2000, total Colorado Basin storage has experienced year to year increases and decreases in response to wet and dry hydrology, ranging from a high of 94 percent of capacity at the beginning of 2000 to the now current level of 33 percent of capacity at the beginning of water year 2023. Based on current inflow forecasts, the current projected end of water year 2023 total Colorado Basin reservoir storage is approximately 20.93 maf (36 percent of total system capacity). The actual end of water year 2023 system storage may vary from this projection, primarily due to uncertainty regarding this season's runoff and reservoir inflow.

To: All Annual Operating Plan Recipients

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Subject: February 2023 Most Probable 24-Month Study

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The 2022 Plan provisions to protect a target elevation at Lake Powell of 3,525 feet through adjusting Glen Canyon Dam monthly volume releases have been incorporated into the February 2023 24-Month Study and include an adjusted monthly release volume pattern for Glen Canyon Dam that will hold back a total of 0.523 maf in Lake Powell from December 2022 through April 2023. There are continued discussions when and how that same amount of water (0.523 maf) will be released later in the water year. The annual release volume from Lake Powell for WY 2023 will continue to be 7.00 maf, or higher, according to the provisions outlined below. If future projections indicate the monthly adjustments are insufficient to protect Powell's elevation, Reclamation will again consider additional water releases from the upstream initial units of the Colorado River Storage Project according to the provisions of the 2022 Plan.

The reduction of releases from Lake Powell from 7.48 maf to 7.00 maf in WY 2022 resulted in a reduced release volume of 0.480 maf that normally would have been released from Glen Canyon Dam to Lake Mead as part of the 7.48 maf annual release volume, consistent with routine operations under the 2007 Interim Guidelines. The reduction of releases from Glen Canyon Dam in WY 2022 (resulting in increased storage in Lake Powell) did not affect the operating determinations for 2023 and was accounted for "as if" this volume of water had been delivered to Lake Mead. The 24-Month Study will continue to model 2023 and 2024 operations at lakes Powell and Mead as if the 0.480 maf had been delivered to Lake Mead for operating condition purposes both for the U.S. Lower Basin and for Mexico unless otherwise determined through additional consultation and communication as described below. The elevations listed in this report reflect the projected physical elevations at each reservoir after implementing operations as described.

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- Balancing releases will take into account operational neutrality of the 0.480 maf that was retained in Lake Powell under the May 2022 action.¹ Any Lake Powell balancing release volume will be calculated as if the 0.480 maf had been delivered to Lake Mead in WY 2022; and
- The modeling approach for WY 2023 will apply to 2024.

Consistent with the operating approach described above, the February 2023 24-Month Study projects a WY release volume of 7.77 maf. Consistent with the provisions of the 2007 Interim Guidelines, and to preserve the benefits to Glen Canyon Dam facilities from 2022 Operations into 2023 and 2024, Reclamation will consult with the Basin States on monthly and annual operations. Reclamation will also ensure all appropriate consultations with Basin Tribes, the Republic of Mexico, other federal agencies, water users, and non-governmental organizations with respect to implementation of these monthly and annual operations.

Reclamation continues to consult with the Drought Response Operating Agreement Parties and the other Colorado River Basin States on the implementation of the Drought Response Operations Plans and potential consideration of 2023 Drought Response Operations. The results of these consultations and other factors may result in adjustments from what is presented in this 24-Month Study.

Reclamation will continue to carefully monitor hydrologic and operational conditions and assess the need for additional responsive actions and/or changes to operations. Reclamation will continue to consult with the Basin States, Basin Tribes, the Republic of Mexico, and other partners on Colorado River operations to consider and determine whether additional measures should be taken to further enhance the preservation of these benefits, as well as recovery protocols, including those of future protective measures for both Lakes Powell and Mead.

The August 2022 24-Month Study projected the January 1, 2023 Lake Mead elevation, determined as if the 0.480 maf had been delivered to Lake Mead in WY 2022, to be below 1,050 feet and above 1,045 feet. Consistent with Section 2.D.1 of the Interim Guidelines, a Shortage Condition consistent with Section 2.D.1.b will govern the operation of Lake Mead for Calendar Year (CY) 2023. In addition, Section III.B of Exhibit 1 to the Lower Basin Drought Contingency Plan (DCP) Agreement will govern the operation of Lake Mead for CY 2023. Efforts to conserve additional water in Lake Mead under a 2021 Lower Basin Memorandum of Understanding (MOU) to facilitate near-term actions to maintain the water surface elevation of Lake Mead will also take place in CY 2023.

The 2023 operational tier determinations for Lake Powell and Lake Mead will be documented in the 2023 AOP, which is currently in the final stages of development.

Current runoff projections into Lake Powell are provided by the National Weather Service's Colorado Basin River Forecast Center and are as follows. The observed unregulated inflow into Lake Powell for the month of January was 0.361 maf or 107 percent of the 30-year average from 1991 to 2020. The February 2023 unregulated inflow forecast for Lake Powell is 0.300 maf or 82 percent of the 30-year average. The 2023 April through July unregulated inflow forecast is 7.500 maf or 117 percent of average.

In this study, the CY 2023 diversion for Metropolitan Water District of Southern California (MWD) is projected to be 0.996 maf. The CY 2023 diversion for the Central Arizona Project (CAP) is projected to be 1.009 maf. Consumptive use for Nevada above Hoover (SNWP Use) is projected to be 0.214 maf for CY 2023.

Due to changing Lake Mead elevations, Hoover's generator capacity is adjusted based on estimated effective capacity and plant availability. The estimated effective capacity is based on projected Lake Mead elevations. Unit capacity tests will be performed as the lake elevation changes. This study reflects these changes in the projections.

Hoover, Davis, and Parker Dam historical gross energy figures come from Power, Operations, and Maintenance reports provided by the Lower Colorado Region's Power Office, Bureau of Reclamation, Boulder City, Nevada. Questions regarding these historical energy numbers can be directed to Cheri Woodward at (702) 293-8101 or Rebecca Rogers (702) 293-8091.

Runoff and inflow projections into upper basin reservoirs are provided by the National Weather Service's Colorado Basin River Forecast Center and are as follows in thousand acre-feet (kaf):

Reservoir	Observed Inflow (kaf)				Jan	Inflow Forecast (kaf)				
	Oct	Nov	Dec	Jan	%Avg	Feb	Mar	Apr	Apr-Jul	%Avg
Lake Powell	437	349	281	361	107%	300	500	950	7500	117%
Fontenelle	40	33	28	32	105%	26	45	70	650	88%
Flaming Gorge	41	40	26	38	94%	38	100	120	880	91%
Blue Mesa	32	26	24	24	101%	20	30	60	680	107%
Morrow Point	33	27	26	26	103%	22	33	70	730	106%
Crystal	36	29	28	28	96%	26	38	83	815	106%
Taylor Park	5.5	3.9	4.3	4.1	96%	3.5	3.7	8	105	112%
Vallecito	14.2	6.8	5.1	5.4	105%	4	6	20	190	107%
Navajo	44	23	17.5	20	100%	22	52	120	620	98%
Lemon	3.5	1.37	0.89	0.9	110%	0.7	1.1	5	55	115%
McPhee	8.8	3.3	3.4	4.1	98%	3.5	12	70	315	124%
Ridgway	7.3	4.4	3.9	3.9	99%	3.4	4.8	7	94	102%
Deerlodge	21	24	22	23	98%	22	65	285	1700	143%
Durango	22	13.6	10.9	10.3	84%	9.5	16	45	425	110%

The draft 2023 AOP is available online at:

https://www.usbr.gov/uc/water/rsvrs/ops/aop/AOP23_draft.pdf.

The Interim Guidelines are available online at:

<https://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf>.

The Colorado River DCPs are available online at:

<https://www.usbr.gov/dcp/finaldocs.html>.

The 2021 Lower Basin MOU is available online at:

https://www.usbr.gov/lc/region/g4000/2021_MOU.pdf.

The Upper Basin DROA is online at:

<https://www.usbr.gov/dcp/droa.html>.

The Upper Basin Hydrology Summary is available online at:

https://www.usbr.gov/uc/water/crsp/studies/24Month_02_ucb.pdf.

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Fontenelle Reservoir



— BUREAU OF —
RECLAMATION

	Date	Regulated Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	Power Release (1000 Ac-Ft)	Bypass Release (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)
*	Feb 2022	23	1	46	0	46	6479.63	157
H	Mar 2022	46	1	50	0	50	6478.63	151
I	Apr 2022	50	1	5	44	49	6478.74	152
S	May 2022	63	1	47	8	55	6479.96	158
T	Jun 2022	241	2	82	0	82	6503.59	315
O	Jul 2022	102	3	83	11	93	6504.34	321
R	Aug 2022	56	2	67	1	68	6502.43	306
I	Sep 2022	29	2	61	0	61	6498.08	274
	WY 2022	744	15	617	67	685		
C	Oct 2022	40	1	22	39	61	6494.58	249
A	Nov 2022	33	1	10	48	58	6490.90	224
L	Dec 2022	28	1	56	2	58	6486.14	194
*	Jan 2023	32	1	58	0	59	6481.53	167
	Feb 2023	26	1	16	36	53	6476.20	140
	Mar 2023	45	0	72	0	72	6469.92	112
	Apr 2023	70	1	80	0	80	6467.12	101
	May 2023	130	1	88	0	88	6476.72	142
	Jun 2023	290	2	101	48	149	6499.03	281
	Jul 2023	160	3	102	19	121	6503.94	318
	Aug 2023	55	2	84	0	84	6499.81	287
	Sep 2023	35	2	71	0	71	6494.50	249
	WY 2023	944	14	761	193	954		
	Oct 2023	45	1	74	0	74	6490.09	219
	Nov 2023	41	1	62	0	62	6486.64	197
	Dec 2023	32	1	58	0	58	6482.07	170
	Jan 2024	31	1	58	0	58	6476.69	142
	Feb 2024	29	0	55	0	55	6470.80	116
	Mar 2024	51	0	58	0	58	6468.85	108
	Apr 2024	77	1	34	48	82	6467.30	102
	May 2024	166	1	92	0	92	6482.92	175
	Jun 2024	301	2	103	84	186	6499.82	287
	Jul 2024	146	3	101	8	110	6504.27	321
	Aug 2024	59	2	79	0	79	6501.33	298
	Sep 2024	39	2	71	0	71	6496.67	264
	WY 2024	1017	14	847	140	988		
	Oct 2024	45	1	74	0	74	6492.37	234
	Nov 2024	42	1	66	0	66	6488.59	209
	Dec 2024	32	1	65	0	65	6483.16	176
	Jan 2025	31	1	65	0	65	6476.69	142

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Flaming Gorge Reservoir



— BUREAU OF —
RECLAMATION

	Date	Unreg Inflow (1000 Ac-Ft)	Reg Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	Power Release (1000 Ac-Ft)	Bypass Release (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Bank Storage (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)	Jensen Flow (1000 Ac-Ft)
*	Feb 2022	30	54	2	47	0	47	117	6017.87	2905	70
H	Mar 2022	74	83	3	52	0	52	118	6018.65	2932	111
I	Apr 2022	66	62	5	51	0	51	118	6018.81	2938	179
S	May 2022	88	88	7	139	48	187	114	6015.77	2769	570
T	Jun 2022	274	113	9	110	12	121	113	6015.25	2752	465
O	Jul 2022	125	110	11	79	0	79	106	6016.09	2780	137
R	Aug 2022	58	70	11	105	0	105	104	6014.73	2735	124
I	Sep 2022	32	63	9	112	0	112	102	6013.01	2680	125
	WY 2022	897	837	70	927	60	987				2138
C	Oct 2022	41	65	6	111	0	111	100	6011.45	2630	142
A	Nov 2022	40	63	3	102	0	102	98	6010.19	2590	132
L	Dec 2022	26	57	2	107	0	107	96	6008.59	2540	138
*	Jan 2023	38	65	2	108	0	108	95	6007.19	2497	143
	Feb 2023	38	65	2	98	0	98	93	6006.10	2464	120
	Mar 2023	100	127	2	82	0	82	95	6007.42	2504	147
	Apr 2023	120	130	4	101	0	101	96	6008.21	2528	386
	May 2023	210	168	6	211	0	211	94	6006.68	2481	931
	Jun 2023	375	234	9	65	0	65	100	6011.62	2635	645
	Jul 2023	175	136	11	52	0	52	103	6013.80	2705	167
	Aug 2023	60	89	11	70	0	70	103	6014.06	2713	90
	Sep 2023	40	76	9	73	0	73	103	6013.88	2708	90
	WY 2023	1264	1275	67	1179	0	1179				3130
	Oct 2023	52	81	6	67	0	67	103	6014.09	2715	93
	Nov 2023	49	70	3	60	0	60	104	6014.33	2722	93
	Dec 2023	34	60	1	68	0	68	103	6014.07	2714	93
	Jan 2024	42	69	1	69	0	69	103	6014.03	2713	94
	Feb 2024	43	69	2	63	0	63	103	6014.14	2716	88
	Mar 2024	85	92	3	49	0	49	105	6015.34	2755	123
	Apr 2024	111	116	4	48	0	48	107	6017.22	2817	251
	May 2024	239	165	7	216	0	216	105	6015.53	2761	729
	Jun 2024	389	274	9	60	0	60	113	6021.44	2959	427
	Jul 2024	161	125	12	55	0	55	115	6023.03	3014	115
	Aug 2024	66	86	11	71	0	71	115	6023.14	3018	90
	Sep 2024	43	75	10	77	0	77	115	6022.81	3007	90
	WY 2024	1314	1285	71	903	0	903				2286
	Oct 2024	52	81	7	63	0	63	115	6023.12	3017	89
	Nov 2024	50	74	3	54	0	54	116	6023.61	3034	84
	Dec 2024	34	67	2	55	0	55	116	6023.87	3044	80
	Jan 2025	42	76	2	55	0	55	117	6024.39	3061	80

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

Model Run ID: 3216

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OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Taylor Park Reservoir



— BUREAU OF —
RECLAMATION

	Date	Regulated Inflow (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)
*	Feb 2022	3	4	9301.88	58
H	Mar 2022	4	4	9301.56	57
I	Apr 2022	8	6	9302.92	59
S	May 2022	27	12	9312.55	74
T	Jun 2022	26	19	9316.61	81
O	Jul 2022	11	15	9314.18	77
R	Aug 2022	8	14	9310.35	70
I	Sep 2022	5	8	9308.87	68
	WY 2022	110	100		
C	Oct 2022	6	6	9308.80	68
A	Nov 2022	4	5	9308.13	67
L	Dec 2022	5	5	9307.68	66
*	Jan 2023	4	5	9307.08	65
	Feb 2023	4	5	9306.75	65
	Mar 2023	4	5	9306.10	64
	Apr 2023	8	7	9306.64	65
	May 2023	28	14	9315.39	79
	Jun 2023	50	24	9329.23	105
	Jul 2023	19	25	9326.41	99
	Aug 2023	10	22	9320.05	87
	Sep 2023	7	18	9313.91	76
	WY 2023	149	141		
	Oct 2023	7	9	9312.51	74
	Nov 2023	5	5	9312.48	74
	Dec 2023	4	5	9311.73	73
	Jan 2024	5	5	9311.60	72
	Feb 2024	4	5	9311.11	72
	Mar 2024	5	5	9310.99	71
	Apr 2024	9	9	9310.99	71
	May 2024	26	15	9317.50	82
	Jun 2024	40	18	9329.14	104
	Jul 2024	15	24	9324.56	95
	Aug 2024	8	18	9319.19	85
	Sep 2024	7	18	9312.82	74
	WY 2024	135	137		
	Oct 2024	7	9	9311.60	72
	Nov 2024	5	5	9311.57	72
	Dec 2024	4	5	9310.80	71
	Jan 2025	5	5	9310.67	71

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Blue Mesa Reservoir



— BUREAU OF —
RECLAMATION

		UnReg Inflow	Regulated Inflow	Evap Losses	Power Release	Bypass Release	Total Release	Reservoir Elev End of Month	Live Storage
	Date	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	(1000 Ac-Ft)
*	Feb 2022	18	19	0	14	0	14	7436.57	241
H	Mar 2022	30	30	0	32	0	32	7436.17	239
I	Apr 2022	62	60	0	44	0	46	7438.94	252
S	May 2022	177	162	1	79	0	79	7454.56	335
T	Jun 2022	133	126	1	69	0	69	7463.76	391
O	Jul 2022	59	63	1	84	0	84	7460.15	368
R	Aug 2022	57	64	1	89	0	89	7455.69	341
I	Sep 2022	31	33	1	55	28	82	7446.72	292
	WY 2022	661	652	6	566	28	595		
C	Oct 2022	32	32	0	0	58	58	7441.74	266
A	Nov 2022	26	27	0	1	10	11	7444.87	282
L	Dec 2022	24	25	0	6	10	17	7446.44	290
*	Jan 2023	24	25	0	20	0	20	7447.43	295
	Feb 2023	20	21	0	14	0	14	7448.57	302
	Mar 2023	30	31	0	18	0	18	7450.82	314
	Apr 2023	60	59	1	13	34	47	7452.92	326
	May 2023	215	201	1	135	0	135	7463.84	391
	Jun 2023	305	279	1	38	0	38	7496.67	631
	Jul 2023	100	106	1	80	0	80	7499.57	655
	Aug 2023	53	65	1	85	0	85	7496.95	633
	Sep 2023	32	43	1	81	0	81	7492.02	594
	WY 2023	922	914	7	492	112	604		
	Oct 2023	36	38	1	74	0	74	7487.43	558
	Nov 2023	30	30	0	15	0	15	7489.37	573
	Dec 2023	26	27	0	16	0	16	7490.84	584
	Jan 2024	25	25	0	16	0	16	7492.04	594
	Feb 2024	23	24	0	14	0	14	7493.23	603
	Mar 2024	38	38	0	18	0	18	7495.64	623
	Apr 2024	78	78	1	46	0	46	7499.46	654
	May 2024	204	193	1	80	0	80	7512.48	765
	Jun 2024	251	229	2	190	0	190	7516.63	803
	Jul 2024	86	95	2	109	0	109	7514.95	787
	Aug 2024	55	65	1	112	0	112	7509.51	739
	Sep 2024	35	46	1	106	0	106	7502.37	678
	WY 2024	887	889	9	795	0	795		
	Oct 2024	36	38	1	93	0	93	7495.63	622
	Nov 2024	31	31	0	32	0	32	7495.45	621
	Dec 2024	26	27	0	43	0	43	7493.44	605
	Jan 2025	25	25	0	43	0	43	7491.14	587

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Morrow Point Reservoir



— BUREAU OF —
RECLAMATION

	Date	Unreg Inflow (1000 Ac-Ft)	Blue Mesa Release (1000 Ac-Ft)	Side Inflow (1000 Ac-Ft)	Total Inflow (1000 Ac-Ft)	Power Release (1000 Ac-Ft)	Bypass Release (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)
*	Feb 2022	19	14	1	15	14	0	14	7145.30	105
H	Mar 2022	31	32	2	33	30	0	30	7149.87	109
I	Apr 2022	65	46	3	50	47	0	47	7153.31	112
S	May 2022	186	79	9	88	89	0	89	7152.08	111
T	Jun 2022	134	69	1	70	71	0	71	7150.86	110
O	Jul 2022	60	84	1	85	84	0	84	7152.31	111
R	Aug 2022	58	89	1	90	90	0	90	7152.25	111
I	Sep 2022	31	82	1	83	78	0	78	7157.81	115
	WY 2022	685	595	24	619	614	0	614		
C	Oct 2022	33	58	1	59	60	0	60	7156.10	114
A	Nov 2022	27	11	1	12	21	0	21	7143.98	104
L	Dec 2022	26	17	2	18	20	0	20	7141.82	103
*	Jan 2023	26	20	2	21	20	0	20	7144.03	105
	Feb 2023	22	14	2	16	9	0	9	7153.73	112
	Mar 2023	33	18	3	21	21	0	21	7153.73	112
	Apr 2023	70	47	10	57	57	0	57	7153.73	112
	May 2023	235	135	20	155	155	0	155	7153.73	112
	Jun 2023	320	38	15	53	53	0	53	7153.72	112
	Jul 2023	105	80	5	85	85	0	85	7153.73	112
	Aug 2023	56	85	3	88	88	0	88	7153.73	112
	Sep 2023	34	81	2	83	83	0	83	7153.73	112
	WY 2023	987	604	65	670	672	0	672		
	Oct 2023	37	74	1	75	75	0	75	7153.73	112
	Nov 2023	31	15	1	16	16	0	16	7153.73	112
	Dec 2023	27	16	1	17	17	0	17	7153.73	112
	Jan 2024	26	16	1	17	17	0	17	7153.73	112
	Feb 2024	25	14	2	16	16	0	16	7153.73	112
	Mar 2024	40	18	2	20	20	0	20	7153.73	112
	Apr 2024	89	46	11	57	57	0	57	7153.73	112
	May 2024	226	80	22	102	102	0	102	7153.73	112
	Jun 2024	265	190	14	204	204	0	204	7153.72	112
	Jul 2024	90	109	4	113	112	0	112	7153.73	112
	Aug 2024	56	112	1	113	113	0	113	7153.73	112
	Sep 2024	36	106	1	107	107	0	107	7153.73	112
	WY 2024	948	795	61	856	856	0	856		
	Oct 2024	37	93	1	94	94	0	94	7153.73	112
	Nov 2024	32	32	1	33	33	0	33	7153.73	112
	Dec 2024	27	43	1	44	44	0	44	7153.73	112
	Jan 2025	26	43	1	44	44	0	44	7153.73	112

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

Model Run ID: 3216

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OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Crystal Reservoir



— BUREAU OF —
RECLAMATION

		Unreg Inflow	Morrow Release	Side Inflow	Total Inflow	Power Release	Bypass Release	Total Release	Reservoir Elev End of Month	Live Storage	Tunnel Flow	Below Tunnel Flow
	Date	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)
*	Feb 2022	22	14	3	17	18	0	18	6746.37	15	0	17
H	Mar 2022	36	30	4	34	32	1	32	6752.56	17	6	25
I	Apr 2022	73	47	8	54	54	1	54	6752.33	17	31	24
S	May 2022	203	89	17	105	92	13	106	6751.40	16	59	48
T	Jun 2022	145	71	10	82	80	2	81	6752.67	17	62	21
O	Jul 2022	64	84	5	89	90	0	90	6747.68	15	65	28
R	Aug 2022	62	90	4	94	92	0	93	6751.52	17	66	31
I	Sep 2022	33	78	2	80	69	12	80	6750.17	16	62	22
	WY 2022	755	614	70	684	622	62	684			393	295
C	Oct 2022	36	60	3	63	53	10	63	6751.29	16	41	21
A	Nov 2022	29	21	2	23	21	2	23	6752.92	17	0	21
L	Dec 2022	28	20	2	22	22	0	22	6751.64	17	2	21
*	Jan 2023	28	20	2	22	22	0	22	6751.37	16	2	21
	Feb 2023	26	9	4	13	12	0	12	6753.04	17	0	12
	Mar 2023	38	21	5	26	26	0	26	6753.04	17	5	21
	Apr 2023	83	57	13	70	70	0	70	6753.04	17	42	28
	May 2023	275	155	40	195	134	60	194	6753.04	17	62	132
	Jun 2023	345	53	25	78	78	0	78	6753.03	17	61	17
	Jul 2023	112	85	7	92	92	0	92	6753.04	17	65	27
	Aug 2023	60	88	4	92	92	0	92	6753.04	17	65	27
	Sep 2023	37	83	3	86	86	0	86	6753.04	17	55	31
	WY 2023	1098	672	111	783	710	72	782			400	381
	Oct 2023	43	75	6	81	52	28	81	6753.04	17	55	26
	Nov 2023	36	16	5	21	21	0	21	6753.04	17	0	21
	Dec 2023	32	17	5	22	22	0	22	6753.04	17	0	22
	Jan 2024	31	17	5	22	22	0	22	6753.04	17	0	22
	Feb 2024	29	16	4	20	20	0	20	6753.04	17	0	20
	Mar 2024	46	20	6	26	26	0	26	6753.04	17	5	21
	Apr 2024	100	57	11	68	68	0	68	6753.04	17	42	26
	May 2024	251	102	25	127	127	0	127	6753.04	17	62	65
	Jun 2024	293	204	28	232	130	102	232	6753.03	17	61	171
	Jul 2024	98	112	8	120	120	0	120	6753.04	17	65	55
	Aug 2024	63	113	7	120	120	0	120	6753.04	17	65	55
	Sep 2024	42	107	6	113	113	0	113	6753.04	17	55	58
	WY 2024	1064	856	116	972	841	131	971			410	561
	Oct 2024	43	94	6	100	56	44	100	6753.04	17	55	45
	Nov 2024	37	33	5	38	38	0	38	6753.04	17	0	38
	Dec 2024	32	44	5	49	49	0	49	6753.04	17	0	49
	Jan 2025	31	44	5	49	49	0	49	6753.04	17	0	49

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

Model Run ID: 3216

Processed On: 2/9/2023 4:02:29PM

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Vallecito Reservoir



— BUREAU OF —
RECLAMATION

	Date	Regulated Inflow (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)
*	Feb 2022	3	0	7628.13	42
H	Mar 2022	7	0	7631.90	48
I	Apr 2022	27	2	7644.01	73
S	May 2022	53	33	7652.10	92
T	Jun 2022	26	34	7648.50	83
O	Jul 2022	19	32	7642.57	70
R	Aug 2022	18	28	7637.64	59
I	Sep 2022	12	26	7630.15	45
	WY 2022	185	160		
C	Oct 2022	14	3	7635.84	56
A	Nov 2022	7	0	7639.00	62
L	Dec 2022	5	0	7641.15	67
*	Jan 2023	5	0	7643.44	72
	Feb 2023	4	0	7645.05	76
	Mar 2023	6	0	7647.44	81
	Apr 2023	20	0	7655.40	100
	May 2023	77	54	7664.07	123
	Jun 2023	72	73	7663.42	121
	Jul 2023	21	42	7655.29	100
	Aug 2023	12	38	7644.33	74
	Sep 2023	11	30	7635.39	55
	WY 2023	255	241		
	Oct 2023	13	17	7633.12	51
	Nov 2023	8	2	7636.27	57
	Dec 2023	7	2	7638.76	62
	Jan 2024	6	2	7640.69	66
	Feb 2024	5	2	7642.16	69
	Mar 2024	10	2	7645.72	77
	Apr 2024	23	2	7654.42	98
	May 2024	68	43	7663.71	122
	Jun 2024	62	62	7663.37	121
	Jul 2024	21	41	7655.28	100
	Aug 2024	15	38	7645.68	77
	Sep 2024	16	29	7639.52	63
	WY 2024	254	242		
	Oct 2024	13	16	7637.77	60
	Nov 2024	9	2	7641.14	67
	Dec 2024	7	2	7643.46	72
	Jan 2025	6	2	7645.28	76

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Navajo Reservoir



— BUREAU OF —
RECLAMATION

		Mod Unreg Inflow	Azotea Tunnel Div	Reg Inflow	Evap Losses	NIIP Diversion	Total Release	Reservoir Elev End of Month	Live Storage	Farmington Flow
	Date	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)
*	Feb 2022	14	0	11	1	1	20	6018.00	848	33
H	Mar 2022	41	2	32	1	4	22	6018.57	853	38
I	Apr 2022	123	17	84	2	17	20	6023.53	898	44
S	May 2022	167	30	114	3	38	18	6029.39	954	104
T	Jun 2022	47	7	50	3	37	24	6027.89	939	61
O	Jul 2022	44	5	54	3	39	35	6025.41	916	55
R	Aug 2022	53	5	56	3	38	30	6023.95	902	49
I	Sep 2022	22	1	35	2	23	40	6020.65	872	56
	WY 2022	574	66	484	20	200	296			595
C	Oct 2022	44	2	32	1	5	33	6019.84	865	51
A	Nov 2022	23	0	16	1	0	19	6019.52	862	37
L	Dec 2022	17	0	13	0	0	22	6018.45	852	37
*	Jan 2023	20	0	15	0	0	20	6017.85	847	34
	Feb 2023	22	0	18	1	0	18	6017.76	846	28
	Mar 2023	52	4	42	1	5	20	6019.58	862	36
	Apr 2023	120	14	86	2	19	19	6024.55	908	64
	May 2023	270	37	210	3	33	20	6040.10	1062	180
	Jun 2023	200	26	175	4	48	19	6049.48	1165	179
	Jul 2023	30	2	49	4	52	22	6046.86	1135	82
	Aug 2023	20	1	45	3	44	33	6043.66	1100	63
	Sep 2023	23	0	41	2	24	28	6042.46	1087	53
	WY 2023	842	87	741	22	231	274			846
	Oct 2023	35	2	38	1	9	20	6043.07	1093	43
	Nov 2023	27	1	20	1	0	19	6043.03	1093	37
	Dec 2023	24	0	19	1	0	20	6042.85	1091	35
	Jan 2024	22	0	18	1	0	20	6042.58	1088	33
	Feb 2024	29	1	25	1	0	19	6043.06	1093	31
	Mar 2024	92	10	74	1	6	20	6047.27	1140	43
	Apr 2024	147	18	107	2	21	19	6052.81	1204	70
	May 2024	251	34	192	3	36	21	6063.36	1336	156
	Jun 2024	187	25	163	4	52	22	6069.62	1420	166
	Jul 2024	33	2	51	5	55	26	6067.04	1385	77
	Aug 2024	24	1	45	4	46	31	6064.33	1349	60
	Sep 2024	31	2	43	3	25	35	6062.80	1328	61
	WY 2024	902	96	794	27	250	275			815
	Oct 2024	35	2	37	2	9	23	6063.04	1332	46
	Nov 2024	30	1	22	1	0	22	6062.93	1330	40
	Dec 2024	24	0	19	1	0	23	6062.53	1325	38
	Jan 2025	22	0	18	1	0	23	6062.06	1319	36

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Lake Powell



— BUREAU OF —
RECLAMATION

	Date	Unreg Inflow (1000 Ac-Ft)	Regulated Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	PowerPlant Release (1000 Ac-Ft)	Bypass Release (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Bank Storage (1000 Ac-Ft)	EOM Storage (1000 Ac-Ft)	Lees Ferry Gage (1000 Ac-Ft)
*	Feb 2022	215	235	4	540	0	540	3526.97	4538	6048	556
H	Mar 2022	329	327	7	574	0	574	3523.13	4519	5812	584
I	Apr 2022	594	490	12	502	0	502	3522.77	4517	5791	510
S	May 2022	1382	1212	14	598	0	598	3531.69	4561	6346	599
T	Jun 2022	1284	1198	25	598	0	598	3539.81	4604	6878	595
O	Jul 2022	491	463	28	672	0	672	3536.20	4551	6212	672
R	Aug 2022	368	444	27	713	0	713	3531.69	4529	5938	722
I	Sep 2022	245	420	24	547	0	547	3529.33	4517	5797	562
	WY 2022	6084	6107	203	6999	0	6999				7066
C	Oct 2022	437	535	17	480	0	480	3529.92	4520	5832	494
A	Nov 2022	349	394	17	498	0	498	3528.02	4511	5720	507
L	Dec 2022	281	358	13	550	0	550	3524.75	4496	5531	560
*	Jan 2023	361	424	4	500	0	501	3523.45	4490	5456	510
	Feb 2023	300	342	4	480	0	480	3521.14	4480	5325	489
	Mar 2023	500	448	6	485	0	485	3520.42	4476	5285	498
	Apr 2023	950	851	10	759	0	759	3521.77	4483	5361	776
	May 2023	2550	2291	14	759	0	759	3544.96	4595	6766	781
	Jun 2023	3000	2317	26	814	0	814	3564.82	4704	8134	835
	Jul 2023	1000	903	35	900	0	900	3564.42	4702	8105	920
	Aug 2023	370	470	34	850	0	850	3559.07	4671	7721	868
	Sep 2023	340	451	30	694	0	694	3555.45	4651	7468	709
	WY 2023	10439	9784	209	7770	0	7770				7947
	Oct 2023	417	466	21	480	0	480	3554.98	4649	7436	493
	Nov 2023	461	450	20	500	0	500	3554.03	4643	7371	501
	Dec 2023	361	380	16	600	0	600	3550.81	4626	7153	602
	Jan 2024	350	366	4	723	0	723	3545.75	4599	6818	730
	Feb 2024	397	399	5	639	0	639	3542.25	4581	6592	648
	Mar 2024	614	502	8	675	0	675	3539.61	4568	6424	688
	Apr 2024	920	737	12	601	0	601	3541.42	4577	6539	618
	May 2024	2060	1754	16	599	0	599	3557.25	4661	7593	621
	Jun 2024	2423	1944	29	628	0	628	3573.51	4757	8785	649
	Jul 2024	711	679	37	709	0	709	3572.70	4752	8723	729
	Aug 2024	371	488	37	758	0	758	3568.94	4729	8439	776
	Sep 2024	316	452	33	568	0	568	3567.08	4718	8300	583
	WY 2024	9401	8617	238	7480	0	7480				7637
	Oct 2024	417	483	23	480	0	480	3566.84	4716	8282	493
	Nov 2024	450	448	22	500	0	500	3565.91	4711	8213	501
	Dec 2024	361	399	18	600	0	600	3563.13	4695	8011	602
	Jan 2025	350	383	5	723	0	723	3558.65	4669	7691	730

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

Model Run ID: 3216

Processed On: 2/9/2023 4:02:29PM

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Hoover Dam - Lake Mead



— BUREAU OF —
RECLAMATION

	Date	Glen Release (1000 Ac-Ft)	Side Inflow Glen to Hoover (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Total Release (1000 CFS)	SNWP Use (1000 Ac-Ft)	Downstream Requirements (1000 Ac-Ft)	Bank Storage (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)
*	Feb 2022	540	58	23	590	10.6	10	590	581	1066.78	8946
H	Mar 2022	574	41	25	1010	16.4	17	1009	555	1061.49	8536
I	Apr 2022	502	30	33	1027	17.3	17	1026	522	1054.69	8026
S	May 2022	598	8	40	1083	17.6	25	1075	489	1047.69	7517
T	Jun 2022	598	16	47	889	14.9	29	877	467	1043.02	7187
O	Jul 2022	672	70	45	822	13.4	31	814	458	1040.92	7041
R	Aug 2022	713	183	48	573	9.3	25	567	473	1044.28	7275
I	Sep 2022	547	118	48	539	9.1	22	545	476	1045.03	7328
	WY 2022	6999	771	463	8899		223	8888			
C	Oct 2022	480	94	46	418	6.8	16	434	482	1046.28	7417
A	Nov 2022	498	18	40	713	12.0	8	714	467	1043.02	7187
L	Dec 2022	550	63	32	438	7.1	8	439	475	1044.82	7313
*	Jan 2023	501	104	22	412	6.7	8	415	485	1046.97	7466
	Feb 2023	480	88	21	461	8.3	3	461	490	1048.07	7544
	Mar 2023	485	107	22	950	15.5	13	950	466	1042.84	7174
	Apr 2023	759	72	30	1074	18.1	20	1074	448	1038.85	6899
	May 2023	759	43	37	1049	17.1	26	1049	429	1034.56	6608
	Jun 2023	814	22	45	949	16.0	31	949	418	1031.89	6430
	Jul 2023	900	56	43	834	13.6	31	834	421	1032.57	6475
	Aug 2023	850	66	46	787	12.8	30	787	424	1033.30	6524
	Sep 2023	694	62	45	705	11.9	23	705	423	1033.07	6508
	WY 2023	7770	795	429	8792		218	8812			
	Oct 2023	480	69	43	539	8.8	15	539	420	1032.41	6464
	Nov 2023	500	68	37	592	9.9	7	592	416	1031.45	6401
	Dec 2023	600	69	30	493	8.0	7	493	425	1033.42	6531
	Jan 2024	723	87	21	559	9.1	10	559	438	1036.50	6738
	Feb 2024	639	88	20	537	9.3	7	537	448	1038.75	6892
	Mar 2024	675	107	22	888	14.4	13	888	439	1036.81	6760
	Apr 2024	601	72	29	1014	17.0	14	1014	416	1031.42	6399
	May 2024	599	43	36	998	16.2	18	998	391	1025.52	6014
	Jun 2024	628	22	42	907	15.2	26	907	371	1020.71	5709
	Jul 2024	709	56	40	795	12.9	29	795	365	1019.21	5616
	Aug 2024	758	66	43	768	12.5	31	768	364	1018.94	5599
	Sep 2024	568	62	42	677	11.4	27	677	357	1017.18	5489
	WY 2024	7480	810	406	8766		203	8766			
	Oct 2024	480	69	40	494	8.0	22	494	356	1017.07	5483
	Nov 2024	500	68	35	592	9.9	12	592	352	1015.99	5416
	Dec 2024	600	69	28	528	8.6	8	528	358	1017.58	5514
	Jan 2025	723	87	20	567	9.2	10	567	371	1020.81	5715

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

Model Run ID: 3216

Processed On: 2/9/2023 4:02:29PM

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Davis Dam - Lake Mohave



— BUREAU OF —
RECLAMATION

	Date	Hoover Release (1000 Ac-Ft)	Side Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	Power Release (1000 Ac-Ft)	Spill Release (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Total Release (1000 CFS)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)
*	Feb 2022	590	-26	8	555	0	555	10.0	641.69	1663
H	Mar 2022	1010	-38	10	931	0	931	15.1	642.79	1693
I	Apr 2022	1027	-31	13	975	0	975	16.4	643.08	1701
S	May 2022	1083	-20	14	1041	0	1041	16.9	643.35	1708
T	Jun 2022	889	-30	14	842	0	842	14.1	643.47	1712
O	Jul 2022	822	-26	12	770	0	770	12.5	643.97	1725
R	Aug 2022	573	-13	16	575	0	575	9.3	642.87	1695
I	Sep 2022	539	-6	16	617	0	617	10.4	639.17	1595
	WY 2022	8899	-228	151	8495	0	8495			
C	Oct 2022	418	-2	14	540	0	542	8.8	633.78	1454
A	Nov 2022	713	-15	13	516	0	516	8.7	640.22	1623
L	Dec 2022	438	4	13	436	0	436	7.1	639.97	1617
*	Jan 2023	412	-4	9	347	0	347	5.6	641.87	1668
	Feb 2023	461	-11	8	439	0	439	7.9	642.00	1671
	Mar 2023	950	-9	10	918	0	918	14.9	642.50	1685
	Apr 2023	1074	-13	13	1035	0	1035	17.4	643.00	1699
	May 2023	1049	-13	14	1022	0	1022	16.6	643.00	1699
	Jun 2023	949	-18	14	917	0	917	15.4	643.00	1699
	Jul 2023	834	-19	12	830	0	830	13.5	642.00	1671
	Aug 2023	787	-17	15	755	0	755	12.3	642.00	1671
	Sep 2023	705	-8	16	735	0	735	12.4	640.01	1617
	WY 2023	8792	-126	151	8490	0	8492			
	Oct 2023	539	-11	14	697	0	697	11.3	633.00	1434
	Nov 2023	592	-16	13	512	0	512	8.6	635.00	1486
	Dec 2023	493	-5	13	357	0	357	5.8	639.51	1604
	Jan 2024	559	-12	9	477	0	477	7.8	641.80	1666
	Feb 2024	537	-11	8	519	0	519	9.0	641.80	1666
	Mar 2024	888	-9	10	835	0	835	13.6	643.05	1700
	Apr 2024	1014	-13	13	990	0	990	16.6	643.00	1699
	May 2024	998	-13	14	970	0	970	15.8	643.00	1699
	Jun 2024	907	-18	14	875	0	875	14.7	643.00	1699
	Jul 2024	795	-19	12	790	0	790	12.9	642.00	1671
	Aug 2024	768	-17	15	735	0	735	12.0	642.00	1671
	Sep 2024	677	-8	16	707	0	707	11.9	640.01	1617
	WY 2024	8766	-151	151	8463	0	8463			
	Oct 2024	494	-11	14	652	0	652	10.6	633.00	1434
	Nov 2024	592	-16	13	512	0	512	8.6	635.00	1486
	Dec 2024	528	-5	13	392	0	392	6.4	639.51	1604
	Jan 2025	567	-12	9	484	0	484	7.9	641.80	1666

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Parker Dam - Lake Havasu



— BUREAU OF —
RECLAMATION

	Date	Davis Release (1000 Ac-Ft)	Side Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Total Release (1000 CFS)	MWD Diversion (1000 Ac-Ft)	CAP Diversion (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)	Flow To Mexico (1000 Ac-Ft)	Flow To Mexico (1000 CFS)
*	Feb 2022	555	12	8	445	8.0	4	103	446.44	551	127	2.3
H	Mar 2022	931	2	9	658	10.7	97	133	448.02	580	170	2.8
I	Apr 2022	975	6	11	737	12.4	100	141	447.11	563	161	2.7
S	May 2022	1041	8	13	741	12.0	106	150	448.68	593	145	2.4
T	Jun 2022	842	18	15	679	11.4	103	60	448.30	586	154	2.6
O	Jul 2022	770	31	17	639	10.4	106	19	448.84	596	150	2.4
R	Aug 2022	575	40	17	482	7.8	106	16	448.16	583	120	2.0
I	Sep 2022	617	15	15	458	7.7	103	52	447.96	579	108	1.8
	WY 2022	8495	176	140	6231		1117	1112			1499	
C	Oct 2022	542	26	12	393	6.4	106	66	447.14	564	67	1.1
A	Nov 2022	516	1	9	336	5.6	103	67	447.09	563	89	1.5
L	Dec 2022	436	16	7	277	4.5	101	63	447.06	562	87	1.4
*	Jan 2023	347	20	6	261	4.2	54	40	447.14	564	125	2.0
	Feb 2023	439	5	8	383	6.9	11	37	447.00	561	129	2.3
	Mar 2023	918	4	9	642	10.4	88	165	447.50	571	168	2.7
	Apr 2023	1035	8	11	737	12.4	97	165	448.70	593	156	2.6
	May 2023	1022	6	13	740	12.0	100	164	448.70	593	121	2.0
	Jun 2023	917	7	16	733	12.3	97	67	448.70	593	128	2.1
	Jul 2023	830	14	17	709	11.5	100	20	448.00	580	130	2.1
	Aug 2023	755	13	17	630	10.2	100	20	447.50	571	103	1.7
	Sep 2023	735	12	15	540	9.1	97	86	447.50	570	96	1.6
	WY 2023	8492	131	140	6379		1052	960			1397	
	Oct 2023	697	18	12	470	7.6	99	125	447.50	571	68	1.1
	Nov 2023	512	17	9	362	6.1	75	76	447.50	570	84	1.4
	Dec 2023	357	18	7	260	4.2	78	44	446.50	552	84	1.4
	Jan 2024	477	14	6	303	4.9	75	100	446.50	552	132	2.1
	Feb 2024	519	5	8	401	7.0	0	108	446.50	552	118	2.1
	Mar 2024	835	4	9	603	9.8	93	121	446.70	555	140	2.3
	Apr 2024	990	8	11	714	12.0	91	133	448.70	593	140	2.4
	May 2024	970	6	13	719	11.7	93	139	448.70	593	105	1.7
	Jun 2024	875	7	16	714	12.0	91	49	448.70	593	111	1.9
	Jul 2024	790	14	17	680	11.1	93	16	448.00	580	117	1.9
	Aug 2024	735	13	17	620	10.1	93	17	447.50	571	97	1.6
	Sep 2024	707	12	15	529	8.9	91	74	447.50	570	95	1.6
	WY 2024	8463	135	139	6375		974	1001			1291	
	Oct 2024	652	18	12	481	7.8	93	76	447.50	571	85	1.4
	Nov 2024	512	17	9	369	6.2	91	53	447.50	570	109	1.8
	Dec 2024	392	18	7	264	4.3	93	60	446.50	552	105	1.7
	Jan 2025	484	14	6	300	4.9	86	100	446.50	552	129	2.1

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

Model Run ID: 3216

Processed On: 2/9/2023 4:02:29PM

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Hoover Dam - Lake Mead



— BUREAU OF —
RECLAMATION

	Date	Power Release (1000 Ac-Ft)	Power Release (1000 CFS)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)	Change In Storage (1000 Ac-Ft)	Hoover Static Head (Ft)	Hoover Gen Capacity MW	Hoover Gross Energy MKWH	Percent of Units Available	KWH/AF
*	Feb 2022	590	10.6	1066.78	8946	-24	420.26	994.0	220.4	67	373.2
H	Mar 2022	1010	16.4	1061.49	8536	-409	413.69	898.0	375.9	62	372.3
I	Apr 2022	1027	17.3	1054.69	8026	-511	405.75	863.0	380.5	61	370.4
S	May 2022	1083	17.6	1047.69	7517	-509	397.38	1082.0	391.7	80	361.7
T	Jun 2022	889	14.9	1043.02	7187	-330	396.77	1076.9	315.1	81	354.6
O	Jul 2022	822	13.4	1040.92	7041	-146	392.29	1236.6	287.9	94	350.1
R	Aug 2022	573	9.3	1044.28	7275	234	399.70	1224.8	200.6	94	349.9
I	Sep 2022	539	9.1	1045.03	7328	53	400.65	1157.3	188.5	88	349.7
WY 2022		8899							3240.9		
C	Oct 2022	418	6.8	1046.28	7417	88	402.36	924.5	145.8	70	348.8
A	Nov 2022	713	12.0	1043.02	7187	-230	395.39	948.8	254.6	72	357.1
L	Dec 2022	438	7.1	1044.82	7313	126	403.20	975.8	152.9	72	348.9
*	Jan 2023	412	6.7	1046.97	7466	152	403.66	866.8	143.8	64	348.8
	Feb 2023	461	8.3	1048.07	7544	79	399.20	810.5	167.2	60	362.8
	Mar 2023	950	15.5	1042.84	7174	-370	396.37	867.6	344.8	66	362.9
	Apr 2023	1074	18.1	1038.85	6899	-276	390.83	912.1	383.7	72	357.3
	May 2023	1049	17.1	1034.56	6608	-291	385.84	970.2	364.1	79	346.9
	Jun 2023	949	16.0	1031.89	6430	-177	382.44	944.5	327.9	78	345.3
	Jul 2023	834	13.6	1032.57	6475	45	380.22	1130.4	284.9	94	341.5
	Aug 2023	787	12.8	1033.30	6524	48	380.59	1207.4	267.4	100	339.6
	Sep 2023	705	11.9	1033.07	6508	-16	381.48	1194.6	238.5	100	338.2
WY 2023		8792							3075.5		
	Oct 2023	539	8.8	1032.41	6464	-44	386.46	826.9	183.8	69	341.3
	Nov 2023	592	9.9	1031.45	6401	-63	387.97	815.0	205.6	69	347.4
	Dec 2023	493	8.0	1033.42	6531	131	386.35	824.2	171.7	69	348.5
	Jan 2024	559	9.1	1036.50	6738	207	386.53	854.8	191.6	70	342.6
	Feb 2024	537	9.3	1038.75	6892	153	388.43	873.1	185.6	70	345.5
	Mar 2024	888	14.4	1036.81	6760	-132	386.47	1068.1	311.5	87	350.9
	Apr 2024	1014	17.0	1031.42	6399	-361	382.42	1038.5	345.7	87	341.0
	May 2024	998	16.2	1025.52	6014	-385	376.82	1019.6	331.8	87	332.5
	Jun 2024	907	15.2	1020.71	5709	-305	371.51	997.2	298.9	87	329.5
	Jul 2024	795	12.9	1019.21	5616	-94	367.44	1189.6	258.6	100	325.2
	Aug 2024	768	12.5	1018.94	5599	-17	366.89	1187.8	248.5	100	323.7
	Sep 2024	677	11.4	1017.18	5489	-109	366.53	1176.5	217.3	100	320.8
WY 2024		8766							2950.4		
	Oct 2024	494	8.0	1017.07	5483	-6	370.10	915.9	164.0	78	331.8
	Nov 2024	592	9.9	1015.99	5416	-66	372.20	863.3	195.6	74	330.4
	Dec 2024	528	8.6	1017.58	5514	98	369.08	1017.7	170.0	86	321.8
	Jan 2025	567	9.2	1020.81	5715	201	370.89	840.4	185.5	70	327.2

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

Model Run ID: 3216

Processed On: 2/9/2023 4:02:29PM

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Davis Dam - Lake Mohave



— BUREAU OF —
RECLAMATION

	Date	Power Release (1000 Ac-Ft)	Power Release (1000 CFS)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)	Change In Storage (1000 Ac-Ft)	Davis Static Head (Ft)	Davis Gen Capacity MW	Davis Gross Energy MKWH	Percent of Units Available	KWH/AF
*	Feb 2022	555	10.0	641.69	1663	2	140.45	174.9	72.1	69	130.0
H	Mar 2022	931	15.1	642.79	1693	30	140.26	253.3	118.7	99	127.4
I	Apr 2022	975	16.4	643.08	1701	8	137.93	255.0	124.0	100	127.1
S	May 2022	1041	16.9	643.35	1708	7	140.42	241.8	132.1	95	126.9
T	Jun 2022	842	14.1	643.47	1712	3	139.18	251.6	108.5	99	128.9
O	Jul 2022	770	12.5	643.97	1725	14	144.37	255.0	99.3	100	129.1
R	Aug 2022	575	9.3	642.87	1695	-30	141.93	253.3	74.7	99	129.9
I	Sep 2022	617	10.4	639.17	1595	-100	137.50	248.2	78.5	97	127.3
WY 2022		8495							1074.5		
C	Oct 2022	540	8.8	633.78	1454	-141	134.35	185.9	66.9	73	123.8
A	Nov 2022	516	8.7	640.22	1623	169	141.13	154.7	62.5	61	121.1
L	Dec 2022	436	7.1	639.97	1617	-7	140.89	159.6	53.9	63	123.5
*	Jan 2023	347	5.6	641.87	1668	52	157.9	44.3	62	127.7	
	Feb 2023	439	7.9	642.00	1671	3	140.98	185.8	55.8	73	127.0
	Mar 2023	918	14.9	642.50	1685	14	138.53	238.6	114.5	94	124.8
	Apr 2023	1035	17.4	643.00	1699	14	138.20	255.0	128.9	100	124.5
	May 2023	1022	16.6	643.00	1699	0	138.70	248.4	127.7	97	125.0
	Jun 2023	917	15.4	643.00	1699	0	139.11	255.0	114.9	100	125.3
	Jul 2023	830	13.5	642.00	1671	-27	139.29	255.0	104.1	100	125.5
	Aug 2023	755	12.3	642.00	1671	0	139.24	255.0	94.7	100	125.4
	Sep 2023	735	12.4	640.01	1617	-54	138.22	255.0	91.5	100	124.5
WY 2023		8490							1059.7		
	Oct 2023	697	11.3	633.00	1434	-183	134.11	227.0	84.2	89	120.8
	Nov 2023	512	8.6	635.00	1486	51	132.74	159.8	61.2	63	119.6
	Dec 2023	357	5.8	639.51	1604	118	137.26	154.7	44.1	61	123.7
	Jan 2024	477	7.8	641.80	1666	62	139.77	156.3	60.0	61	125.9
	Feb 2024	519	9.0	641.80	1666	0	140.36	160.0	65.6	63	126.5
	Mar 2024	835	13.6	643.05	1700	34	139.19	194.1	104.7	76	125.4
	Apr 2024	990	16.6	643.00	1699	-2	138.73	249.9	123.7	98	125.0
	May 2024	970	15.8	643.00	1699	0	138.99	255.0	121.5	100	125.2
	Jun 2024	875	14.7	643.00	1699	0	139.36	255.0	109.8	100	125.6
	Jul 2024	790	12.9	642.00	1671	-27	139.53	255.0	99.4	100	125.7
	Aug 2024	735	12.0	642.00	1671	0	139.37	255.0	92.3	100	125.6
	Sep 2024	707	11.9	640.01	1617	-54	138.40	255.0	88.2	100	124.7
WY 2024		8463							1054.7		
	Oct 2024	652	10.6	633.00	1434	-183	134.40	227.0	79.0	89	121.1
	Nov 2024	512	8.6	635.00	1486	51	132.73	159.8	61.2	63	119.6
	Dec 2024	392	6.4	639.51	1604	118	136.99	154.7	48.4	61	123.4
	Jan 2025	484	7.9	641.80	1666	62	139.71	156.3	61.0	61	125.9

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

Model Run ID: 3216

Processed On: 2/9/2023 4:02:29PM

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Parker Dam - Lake Havasu



— BUREAU OF —
RECLAMATION

	Date	Power Release (1000 Ac-Ft)	Power Release (1000 CFS)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)	Change In Storage (1000 Ac-Ft)	Parker Static Head (Ft)	Parker Gen Capacity MW	Parker Gross Energy MKWH	Percent of Units Available	KWH/AF
*	Feb 2022	445	8.0	446.44	551	1	80.54	86.8	30.9	72	69.4
H	Mar 2022	658	10.7	448.02	580	30	77.95	112.3	45.8	94	69.6
I	Apr 2022	737	12.4	447.11	563	-17	79.08	120.0	50.8	100	68.9
S	May 2022	741	12.0	448.68	593	30	84.09	120.0	51.5	100	69.5
T	Jun 2022	679	11.4	448.30	586	-7	78.23	120.0	47.2	100	69.4
O	Jul 2022	639	10.4	448.84	596	10	82.19	120.0	44.7	100	69.9
R	Aug 2022	482	7.8	448.16	583	-13	83.58	120.0	33.4	100	69.3
I	Sep 2022	458	7.7	447.96	579	-4	81.26	120.0	31.4	100	68.7
WY 2022		6231							431.0		
C	Oct 2022	393	6.4	447.14	564	-15	81.28	91.9	27.2	77	69.1
A	Nov 2022	336	5.6	447.09	563	-1	82.54	82.0	22.8	68	68.0
L	Dec 2022	277	4.5	447.06	562	0	82.38	60.0	18.5	50	66.8
*	Jan 2023	261	4.2	447.14	564	2	81.41	72.6	17.3	60	66.4
	Feb 2023	383	6.9	447.00	561	-3	79.35	95.2	26.7	79	69.7
	Mar 2023	642	10.4	447.50	571	9	77.95	120.0	44.3	100	69.0
	Apr 2023	737	12.4	448.70	593	23	78.05	120.0	51.4	100	69.8
	May 2023	740	12.0	448.70	593	0	78.78	120.0	51.9	100	70.2
	Jun 2023	733	12.3	448.70	593	0	78.67	120.0	51.4	100	70.1
	Jul 2023	709	11.5	448.00	580	-13	78.62	120.0	49.4	100	69.7
	Aug 2023	630	10.2	447.50	571	-10	78.53	120.0	43.7	100	69.4
	Sep 2023	540	9.1	447.50	570	0	78.78	120.0	37.4	100	69.3
WY 2023		6379							442.0		
	Oct 2023	470	7.6	447.50	571	0	79.43	91.0	33.0	76	70.2
	Nov 2023	362	6.1	447.50	570	0	80.19	92.0	24.9	77	68.7
	Dec 2023	260	4.2	446.50	552	-19	80.68	112.3	16.5	94	63.7
	Jan 2024	303	4.9	446.50	552	0	79.79	92.9	20.3	77	66.9
	Feb 2024	401	7.0	446.50	552	0	78.75	95.4	27.7	79	69.2
	Mar 2024	603	9.8	446.70	555	4	77.56	120.0	41.4	100	68.6
	Apr 2024	714	12.0	448.70	593	38	77.79	120.0	49.7	100	69.5
	May 2024	719	11.7	448.70	593	0	78.91	120.0	50.6	100	70.3
	Jun 2024	714	12.0	448.70	593	0	78.79	120.0	50.1	100	70.2
	Jul 2024	680	11.1	448.00	580	-13	78.81	120.0	47.5	100	69.9
	Aug 2024	620	10.1	447.50	571	-10	78.60	120.0	43.1	100	69.5
	Sep 2024	529	8.9	447.50	570	0	78.86	120.0	36.7	100	69.3
WY 2024		6375							441.5		
	Oct 2024	481	7.8	447.50	571	0	79.35	91.0	33.7	76	70.2
	Nov 2024	369	6.2	447.50	570	0	80.13	92.0	25.4	77	68.7
	Dec 2024	264	4.3	446.50	552	-19	80.64	112.3	16.8	94	63.6
	Jan 2025	300	4.9	446.50	552	0	79.82	92.9	20.0	77	66.9

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

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OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Upper Basin Power



— BUREAU OF —
RECLAMATION

		Glen Canyon	Flaming Gorge	Blue Mesa	Morrow Point	Crystal Reservoir	Fontenelle Reservoir
	Date	1000 MWHR	1000 MWHR	1000 MWHR	1000 MWHR	1000 MWHR	1000 MWHR
*	Feb 2022	201	17	3	4	1	3
H	Mar 2022	208	19	8	9	4	3
	Winter 2022	1259	123	34	50	17	19
I	Apr 2022	179	19	11	15	10	0
S	May 2022	214	52	20	31	18	3
T	Jun 2022	222	41	18	25	16	6
O	Jul 2022	251	29	23	29	17	7
R	Aug 2022	265	39	23	31	18	6
I	Sep 2022	201	42	14	27	13	5
	Summer 2022	1332	222	108	160	92	28
C	Oct 2022	175	42	0	21	10	2
A	Nov 2022	181	38	0	6	2	1
L	Dec 2022	199	40	1	6	2	4
*	Jan 2023	182	41	4	5	2	4
	Feb 2023	168	32	4	3	2	1
	Mar 2023	169	27	5	8	5	4
	Winter 2023	1074	219	14	48	22	16
	Apr 2023	264	33	3	20	12	4
	May 2023	272	69	36	56	23	5
	Jun 2023	307	21	11	19	13	7
	Jul 2023	348	17	24	31	16	8
	Aug 2023	326	23	26	32	16	6
	Sep 2023	265	24	24	30	15	5
	Summer 2023	1782	187	125	188	96	35
	Oct 2023	182	22	22	27	9	5
	Nov 2023	189	20	4	6	4	4
	Dec 2023	225	22	5	6	4	4
	Jan 2024	268	23	5	6	4	4
	Feb 2024	235	21	4	6	3	3
	Mar 2024	246	16	6	7	5	3
	Winter 2024	1345	124	45	58	28	23
	Apr 2024	219	16	14	21	12	2
	May 2024	223	72	25	37	22	5
	Jun 2024	242	20	60	74	22	7
	Jul 2024	278	19	34	41	21	8
	Aug 2024	296	24	35	41	21	6
	Sep 2024	221	26	33	39	20	5
	Summer 2024	1259	149	167	212	98	28
	Oct 2024	186	21	28	34	10	5
	Nov 2024	193	18	10	12	7	5
	Dec 2024	231	19	13	16	9	4
	Jan 2025	277	19	13	16	9	4

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

February 2023 24-Month Study

Most Probable Inflow*

Flood Control Criteria - Beginning of Month Conditions



— BUREAU OF —
RECLAMATION

Date	Flaming Gorge KAF	Blue Mesa KAF	Navajo KAF	Lake Powell KAF	Upper Basin Total KAF	Lake Mead KAF	Total KAF	Flaming Gorge KAF	Blue Mesa KAF	Navajo KAF	Tot or Max Allow KAF	Lake Powell KAF	Lake Mead KAF	Total KAF	BOM Space Required KAF	Mead Sched Rel KAF	Mead FC Rel KAF	Sys Cont MAF
**** PREDICTED SPACE ****								**** EFFECTIVE SPACE ****										
Feb 2023	1,347	529	801	17858	20535	20154	40689	409	397	460	1266	17858	20154	39279	1500	461	0	19.1
Mar 2023	1,408	523	802	17988	20721	20076	40797	469	392	460	1321	17988	20076	39385	1500	950	0	18.7
Apr 2023	1,394	511	785	18029	20720	20446	41165	451	380	438	1269	18029	20446	39743	1500	1074	0	18.6
May 2023	1,381	499	740	17953	20573	20721	41295	432	367	371	1171	17953	20721	39845	1500	1049	0	20.0
Jun 2023	1,388	434	586	16547	18955	21012	39967	433	286	182	901	16547	21012	38461	1500	949	0	21.8
Jul 2023	1,094	194	483	15180	16951	21190	38141	123	20	26	169	15180	21190	36539	1500	834	0	21.9
								**** CREDITABLE SPACE ****										
Aug 2023	988	170	513	15209	16880	21145	38024	988	170	513	1670	15209	21145	38024	1500	787	0	21.4
Sep 2023	1,010	192	548	15593	17343	21096	38439	1010	192	548	1750	15593	21096	38439	2270	705	0	21.0
Oct 2023	1,054	231	561	15846	17692	21112	38804	1054	231	561	1847	15846	21112	38804	3040	539	0	20.7
Nov 2023	1,077	267	555	15878	17777	21156	38932	1077	267	555	1899	15878	21156	38932	3810	592	0	20.6
Dec 2023	1,092	252	555	15943	17842	21219	39061	1092	252	555	1899	15943	21219	39061	4580	493	0	20.6
Jan 2024	1,127	240	557	16161	18086	21089	39174	1127	240	557	1924	16161	21089	39174	5350	559	0	20.5
								**** EFFECTIVE SPACE ****										
Jan 2024	1,127	240	557	16161	18086	21089	39174	509	232	481	1222	16161	21089	38472	5350	559	0	20.5
Feb 2024	1,156	231	560	16496	18443	20882	39325	537	222	483	1242	16496	20882	38620	1500	537	0	20.4
Mar 2024	1,179	222	555	16722	18677	20728	39406	557	213	477	1248	16722	20728	38698	1500	888	0	20.3
Apr 2024	1,148	202	508	16889	18747	20860	39607	521	194	424	1139	16889	20860	38888	1500	1014	0	20.2
May 2024	1,092	171	444	16775	18481	21221	39703	458	162	336	955	16775	21221	38952	1500	998	0	21.2
Jun 2024	1,075	59	312	15721	17167	21606	38773	435	38	165	638	15721	21606	37965	1500	907	0	22.5
Jul 2024	764	22	228	14529	15543	21911	37454	106	-23	25	108	14529	21911	36547	1500	795	0	22.3
								**** CREDITABLE SPACE ****										
Aug 2024	676	37	263	14591	15567	22004	37572	676	37	263	976	14591	22004	37572	1500	768	0	21.9
Sep 2024	695	86	299	14875	15954	22021	37976	695	86	299	1079	14875	22021	37976	2270	677	0	21.5
Oct 2024	740	147	319	15014	16220	22131	38351	740	147	319	1206	15014	22131	38351	3040	494	0	21.2
Nov 2024	759	202	316	15032	16309	22137	38446	759	202	316	1278	15032	22137	38446	3810	592	0	21.1
Dec 2024	767	204	318	15100	16389	22204	38593	767	204	318	1289	15100	22204	38593	4580	528	0	21.0
Jan 2025	791	220	323	15303	16637	22106	38743	791	220	323	1334	15303	22106	38743	5350	567	0	20.9
								**** EFFECTIVE SPACE ****										
Jan 2025	791	220	323	15303	16637	22106	38743	473	220	143	836	15303	22106	38244	5350	567	0	20.9

* Based on the Colorado River Basin Forecast Center's Most Probable Water Supply Forecast

Model Run ID: 3216

Processed On: 2/9/2023 4:02:29PM