# September 24-Month Study Date: September 15th 2023

**From:** Water Resources Group, Salt Lake City

To: All Colorado River Annual Operating Plan (AOP) Recipients

#### **Current Reservoir Status**

	August Inflow (unregulated)	% (percent)	Sept. 14 Midnight Elevation (feet)	Sept. 14, Midnight Reservoir Storage
	(acre-feet)			(acre-feet)
Fontenelle	73,900	114	6501.36	298,360
Flaming Gorge	95,200	133	6030.39	3,280,081
Blue Mesa	48,800	85	7501.17	667,932
Navajo	-3,500	-11	6049.77	1,168,446
Powell	307,100	82	3573.63	8,794,587

#### **Expected Operations**

The operation of Lake Powell and Lake Mead in the September 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 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.

Consistent with Section 6.D.1 of the Interim Guidelines, Lake Powell's operation in water year (WY) 2023 is governed by the Lower Elevation Balancing Tier with an initial projected water year release volume of 7.00 million acre-feet (maf). Based on hydrologic conditions in April 2023, Reclamation determined that conditions were sufficient to release up to 9.50 maf from Lake Powell in WY 2023, consistent with Section 6.D.1 of the Interim Guidelines, but releases could be as low as 7.00 maf consistent with the Interim Guidelines and to protect Lake Powell from declining below elevation 3,525 feet at the end of December 2023. Balancing releases in WY 2023 are based on the projected end of water year physical contents of Lake Powell and Lake Mead. During the month of September 2023, Reclamation will monitor system conditions daily and adjust the monthly release volume as necessary to balance the contents of Lake Powell and Lake Mead as closely as practicable by the end of the water year.

Consistent with this operating approach and based on the most probable inflow forecast, the September 2023 24-Month Study projects a balancing release of 8.65 maf from Lake Powell in WY 2023. The projected release from Lake Powell in WY 2023 will be updated each month throughout the remainder of the water year. The modeling approach for 2024 and beyond will be consistent with the Interim Guidelines and will be based on the projected physical contents at Lake Powell and Lake Mead.

The 2022 Drought Response Operations Agreement (DROA) Plan<sup>1</sup> for May 2022 through April 2023 was amended to suspend 2022 DROA Plan releases as of March 7, 2023. A total DROA release of approximately 463 thousand acre-feet (kaf) occurred under the 2022 DROA Plan. Reclamation will attempt

to maximize DROA recovery in the Upper Initial Units in WY 2023 and through April 2024. Reclamation will provide monthly DROA accounting, including DROA releases and recovery, which can be found online at: https://www.usbr.gov/dcp/DROSummarySheet.pdf.

In May of 2023, the DROA Parties agreed to the 2023 DROA Plan. The 2023 DROA Plan does not include any DROA releases, but rather provides for recovery of prior DROA releases from the units upstream of Powell.

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, 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.

Consistent with Section 2.D.1 of the Interim Guidelines, a Shortage Condition consistent with Section 2.D.1.b is governing 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 and additional conservation efforts under the Lower Colorado River Basin System Conservation and Efficiency Program (LC Conservation Program) will also take place in CY 2023.

The August 2023 24-Month study projected the January 1, 2024, Lake Powell elevation to be less than 3,575 feet and at or above 3,525 feet and the Lake Mead elevation to be at or above 1,025 feet. Consistent with Section 6.C.1 of the Interim Guidelines the operational tier for Lake Powell in WY 2024 will be the Mid-Elevation Release Tier and the water year release volume from Lake Powell will be 7.48 maf.

The August 2023 24-Month Study projected the January 1, 2024 Lake Mead elevation to be below 1,075 feet and above 1,050 feet. Consistent with Section 2.D.1 of the Interim Guidelines, a Shortage Condition consistent with Section 2.D.1.a will govern the operation of Lake Mead for CY 2024. In addition, Section III.B of Exhibit 1 to the Lower Basin DCP Agreement will also govern the operation of Lake Mead for CY 2024. Lower Basin projections for Lake Mead take into consideration updated water orders to reflect additional conservation efforts under the LC Conservation Program.

The 2024 operational tier determinations for Lake Powell and Lake Mead will be documented in the 2024 AOP, which is currently in development.

Current runoff projections into Lake Powell are provided by the National Weather Service's Colorado Basin River Forecast Center. The observed unregulated inflow into Lake Powell for the month of August was 0.307 maf or 82% of the 30-year average from 1991 to 2020. The September 2023 unregulated inflow forecast for Lake Powell is 0.40 maf or 116% of the 30-year average. The observed 2023 April through July unregulated inflow is 10.62 maf or 166% of average.

The draft 2024 AOP is available online at: <a href="https://www.usbr.gov/lc/region/g4000/AOP2024/AOP24">https://www.usbr.gov/lc/region/g4000/AOP2024/AOP24</a> draft.pdf The 2023 AOP is available online at: <a href="https://www.usbr.gov/uc/water/rsvrs/ops/aop/AOP23.pdf">https://www.usbr.gov/uc/water/rsvrs/ops/aop/AOP23.pdf</a>.

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/q4000/2021 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 09 ucb.pdf.

Information on the LC Conservation Program is available online at:

https://www.usbr.gov/lc/LCBConservation.html.

#### Fontenelle Reservoir

As of September 04, 2023, the Fontenelle Reservoir pool elevation is 6502.17 feet, which amounts to 91 percent of live storage capacity. Inflows for the month of August totaled approximately 73,922 acre-feet (af) or 114 percent of average.

August inflow to Fontenelle was higher than initially forecasted. Runoff has been unpredictable due to unsettled weather in the region throughout summer. Release rates are currently holding at 1,200 cfs and will remain at 1,200 cfs longer than initial predictions. Pending hydrology, release rates may need to decrease to approximately 1,100 cfs at the end of September.

The September final forecast for unregulated inflows into Fontenelle for the next three months projects near average conditions. September, October, and November Most Probable inflow volumes amount to 45,000 af (113 percent of average), 50,000 af (111 percent of average), and 45,000 af (107 percent of average), respectively.

The next Fontenelle Working Group meeting is pending time and location. 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 Reservoir

As of September 12, 2023 (end of day), Flaming Gorge Reservoir pool elevation is 6030.47 feet, which amounts to 89 percent of live storage capacity. Unregulated inflow volume for the month of August is approximately 95,000 af, which is 133 percent of the average August unregulated inflow volume. Current average daily releases are approximately 1,900 cfs. The Colorado pikeminnow experiment is being implemented and releases will be made, pending the Yampa flow, to achieve greater than 2,200 cfs in Reach 2, measured at the USGS Jensen gage.

The September unregulated inflows into Flaming Gorge for the next three months projects near average. September, October, and November forecasted unregulated inflow volumes amount to 55,000 af (119).

percent of average), 60,000 af (113 percent of average), and 56,000 af (113 percent of average), respectively.

Per the Reclamation Flaming Gorge Record of Decision (ROD) and Final Environmental Impact Statement (FEIS), Reclamation will change the current month's hydrologic classification during the baseflow period. Adjustments to the current month's (September) hydrologic classification is based on observed unregulated inflow volume from the previous month (August). Flaming Gorge Dam operated under the moderately wet hydrologic classification in August; however, since the observed August 2023 unregulated inflow was 95,000 acre feet, a 39% exceedance value, the hydrologic classification for September 2023 will shift down 1 classification to average. An average hydrologic classification targets a flow range of 1,500-2,400 cfs in reach 2 of the Green River which is measured at the Jensen USGS streamgage (USGS Link). Flaming Gorge Dam releases and inflows downstream of the facility, especially from the Yampa River, will be used to meet the reach 2 flow target.

To achieve Reclamation's mission goals, and Flaming Gorge Operations Plan and ROD objectives, the September 2023 reach 2 flow target will remain at greater than 2,200 cfs due to the ongoing Colorado pikeminnow experiment, which is projected to conclude at the end of September. Concerning releases in October, it is anticipated to achieve near 2,200 cfs in Reach 2 (measured at Jensen, Utah). Average daily releases are anticipated to be near 1,700 cfs and this will depend on what the Yampa is providing. Hourly release schedules issued by WAPA for power production may include daily fluctuations to meet power demand contracts. This data is considered the most likely scenario given the current forecast, is general, and is subject to changing conditions.

Reclamation is planning to hold Flaming Gorge Working Group meetings tentatively on March 21, 2024 and April 17, 2024, at 10:00 am (and Teams virtual meeting). The location is TBD. 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 Alex Pivarnik at (385) 475 – 8329.

#### **Aspinall Unit Reservoirs**

As of September 10, 2023, releases from Crystal Dam are approximately 1,750 cfs. Flows of the Gunnison River in the Black Canyon are being maintained at about 690 cfs while the Gunnison Tunnel is diverting 1,045 cfs. Flows in the Whitewater Reach of the Gunnison River are about 1,570 cfs.

The unregulated inflow volume in July to Blue Mesa was 48,800 af (86 percent of average). Unregulated Inflow volumes forecasted for Blue Mesa for the next three months (September, October and November) are projected to be: 39,000 af (111 percent of average), 38,000 af (103 percent of average) and 33,000 af (110 percent of average), respectively. The September 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 890,000 af (98 percent of average). The water supply period (April-July) for 2024 had an unregulated inflow volume of to be 618,000 af of unregulated inflow (97 percent of average).

Blue Mesa elevation has increased dramatically between April and the end of June. On April 9, 2023 the elevation of Blue Mesa was 7444.46 feet above sea level and Blue Mesa was 36.3% full. On June 25, 2023, the elevation of Blue Mesa reached its peak for the year at 7512.47 feet above sea level and Blue Mesa storage reached 92 4% of full. By the end of water year 2023 (September 30, 2023) Blue Mesa elevation is projected to be approximately 7,495.39 feet above sea level with about 620,490 acre-feet of storage which will be 75 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 January 21, 2024 at 1:00 p.m., in person at the Elk Creek Visitor Center at Blue Mesa Reservoir. This will be an in-person meeting with an option for remote participation. 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 September 7th the daily average release rate from Navajo Dam was 800 cfs while reservoir inflow was averaging 157 cfs. The water surface elevation was 6050.88 feet above sea level. At this elevation the live storage is 1.18 maf (72 percent of live storage capacity) and the active storage is 554 maf (54 percent of active storage capacity). An average of 534 cfs is currently being diverted to Cutter Reservoir for the Navajo Indian Irrigation Project (NIIP). Due to streamflows below minimum bypass, 0 cfs is being diverted to the San Juan-Chama Project (SJC) above Navajo Reservoir. So far this calendar year, NIIP has diverted 177 kaf and SJC has diverted 144 kaf.

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 (SJRIP) 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 August was -3.1 kaf. When the MUI is negative, it indicates a large proportion of loss from upper reservoir releases downstream. Observed inflow to Navajo was 23 kaf. The release averaged 690 cfs and totaled 42.3 kaf, which was 87 percent of average for the month. The total April-July modified unregulated inflow into Navajo was 1,028 kaf (164 percent of average).

The most probable MUI forecast for September, October, and November, is 9 kaf (26% of average), 30 kaf (78% of average), and 31 kaf (116% of average), respectively.

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, January 16th 2024 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**

Consistent with Section 6.D.1 of the Interim Guidelines, Lake Powell's operation in WY 2023 is governed by the Lower Elevation Balancing Tier with an initial projected WY release volume of 7.00 maf. Based on hydrologic conditions as of April 2023, Reclamation determined that conditions were sufficient to release up to 9.50 maf from Lake Powell in WY 2023 consistent with Section 6.D.1 of the Interim Guidelines, but releases could be as low as 7.00 maf consistent with the Interim Guidelines and to protect Lake Powell from declining below elevation 3,525 feet at the end of December 2023. Balancing releases in WY 2023 are based on projected end of water year physical contents of Lake Powell and Lake Mead.

Consistent with this operating approach and based on the most probable inflow forecast, the September 2023 24-Month Study projects a balancing release of 8.66 maf from Lake Powell in WY 2023. The projected release from Lake Powell in WY 2023 will be updated each month throughout the remainder of the water year. The modeling approach for 2024 and beyond will be consistent with the Interim Guidelines and will be based on the projected physical contents at Lake Powell and Lake Mead.

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, 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 unregulated inflow volume to Lake Powell during August was 307 kaf (82 percent of average). The release volume from Glen Canyon Dam in August was 902 kaf. The end of August elevation and storage of Lake Powell were 3,574.71 feet (125 feet from full pool) and 8.88 maf (38 percent of live capacity), respectively.

#### **Current Operations**

The August 2023 24-Month study projects the January 1, 2023, Lake Powell elevation to be less than 3,575 feet and at or above 3,525 feet and the Lake Mead elevation to be at or above 1,025 feet. Consistent with Section 6.C.1 of the Interim Guidelines the operational tier for Lake Powell in water year 2024 is the Mid-Elevation Release Tier and the water year release volume from Lake Powell is 7.48 maf.

Hourly releases will fluctuate from a low of approximately 6,000 cubic feet per second (cfs) during the early morning hours to a high of 8,000 cfs during the afternoon and evening hours from September 14, 2023, through September 20, 2023.

Beginning Thursday, September 21, 2023, hourly releases will fluctuate from a low of approximately 5,000 cubic feet per second (cfs) during the early morning hours to a high of 8,000 cfs during the afternoon and

evening hours. These releases are the lowest minimum allowable under the 2016 Long-Term Experimental Management Plan Record of Decision. The anticipated monthly release volume for September will be confirmed throughout September as Reclamation balances the contents between Lakes Powell and Mead by the end of water year 2023 as nearly as practicable, as required under the Lower Elevation Balancing Tier, Section 6.D.1. of the 2007 Interim Guidelines.

The anticipated monthly release volume for October is anticipated to be 480,000 acre-feet and will be confirmed toward the end of September.

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 September 1, 2023, by the Colorado Basin River Forecast Center, projects that the most probable (median) unregulated inflow volume in water year 2023 will be 13.6 maf (142 percent of average).

In addition to the September 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 September to determine a possible range of reservoir elevations. The September 2023 24-Month Study probable most and minimum and the August 2023 24-Month Study maximum probable 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 current Plan is described above and available for review here: https://www.usbr.gov/dcp/droa.html.

The September forecast for water year 2023 is 13.60 maf (142 percent of average). The September forecast for WY 2024 ranges from a minimum probable of 6.30 maf (66% of average) to a forecasted August 24-Month Study maximum probable of 17.70 maf (184 percent of average) with the most probable forecast for water year 2024 of 10.00 maf (104 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 13.60 maf unregulated, the September 24-Month Study projects Lake Powell elevation will end water year 2023 near 3574.31 feet with approximately 8.85 maf in storage (38 percent of capacity). Based on the current forecast for water year 2024 of 10.00 maf unregulated, the September 24-Month Study projects Lake Powell elevation will end water year 2024 near 3597.15 feet with approximately 10.74 maf in storage (46 percent of capacity). Note that projections of elevation and storage for water year 2024 have significant uncertainty at this point in the season. Projections of end of water year 2024 elevation using the September minimum and August maximum inflow forecast results are 3,560.03 feet and 3,656.79 feet, respectively. The annual release volume from Lake Powell during water year 2024 is 7.48 maf under the Mid-Elevation Release Tier as determined under Section 6.C.1 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 13.60 maf (142 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 25.34 maf (43.3 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

From: Noe Santos, P.E.

River Operations Manager

Boulder Canyon Operations Office Interior Region 8: Lower Colorado Basin

Email: nsantos@usbr.gov

From: Alex Pivarnik

Supervisor, River Operations Group Upper Colorado Operations Office Interior Region 7: Upper Colorado Basin

Email: apivarnik@usbr.gov

Subject: September 2023 Most Probable 24-Month Study

The operation of Lake Powell and Lake Mead in the September 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 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.

Consistent with Section 6.D.1 of the Interim Guidelines, Lake Powell's operation in water year (WY) 2023 is governed by the Lower Elevation Balancing Tier with an initial projected water year release volume of 7.00 million acre-feet (maf). Based on hydrologic conditions in April 2023, Reclamation determined that conditions were sufficient to release up to 9.50 maf from Lake Powell in WY 2023, consistent with Section 6.D.1 of the Interim Guidelines, but releases could be as low as 7.00 maf consistent with the Interim Guidelines and to protect Lake Powell from declining below elevation 3,525 feet at the end of December 2023. Balancing releases in WY 2023 are based on the projected end of water year physical contents of Lake Powell and Lake Mead. During the month of September 2023, Reclamation will monitor system conditions daily and adjust the monthly release volume as necessary to balance the contents of Lake Powell and Lake Mead as closely as practicable by the end of the water year.

Consistent with this operating approach and based on the most probable inflow forecast, the September 2023 24-Month Study projects a balancing release of 8.65 maf from Lake Powell in WY 2023. The projected release from Lake Powell in WY 2023 will be updated each month throughout the remainder of the water year. The modeling approach for 2024 and beyond will be consistent with the Interim Guidelines and will be based on the projected physical contents at Lake Powell and Lake Mead.

The 2022 Drought Response Operations Agreement (DROA) Plan for May 2022 through April 2023 was amended to suspend 2022 DROA Plan releases as of March 7, 2023. A total DROA release of approximately 463 thousand acre-feet (kaf) occurred under the 2022 DROA Plan. Reclamation will attempt to maximize DROA recovery in the Upper Initial Units in WY 2023 and through April 2024. Reclamation will provide monthly DROA accounting, including DROA releases and recovery, which can be found online at: https://www.usbr.gov/dcp/DROSummarySheet.pdf.

In May of 2023, the DROA Parties agreed to the 2023 DROA Plan. The 2023 DROA Plan does not include any DROA releases, but rather provides for recovery of prior DROA releases from the units upstream of Powell.

Reclamation will continue to carefully monitor hydrologic and operational conditions and assess the need for additional responsive actions and/or changes to

<sup>&</sup>lt;sup>1</sup> For more information: https://www.usbr.gov/uc/DocLibrary/Plans/20220429-2022DroughtResponseOperationsPlan-ApprovalMemo-508-DOI.pdf.

operations. Reclamation will continue to consult with the Basin States, Basin Tribes, 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.

Consistent with Section 2.D.1 of the Interim Guidelines, a Shortage Condition consistent with Section 2.D.1.b is governing 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 and additional conservation efforts under the Lower Colorado River Basin System Conservation and Efficiency Program (LC Conservation Program) will also take place in CY 2023.

The August 2023 24-Month study projected the January 1, 2024, Lake Powell elevation to be less than 3,575 feet and at or above 3,525 feet and the Lake Mead elevation to be at or above 1,025 feet. Consistent with Section 6.C.1 of the Interim Guidelines the operational tier for Lake Powell in WY 2024 will be the Mid-Elevation Release Tier and the water year release volume from Lake Powell will be 7.48 maf.

The August 2023 24-Month Study projected the January 1, 2024 Lake Mead elevation to be below 1,075 feet and above 1,050 feet. Consistent with Section 2.D.1 of the Interim Guidelines, a Shortage Condition consistent with Section 2.D.1.a will govern the operation of Lake Mead for CY 2024. In addition, Section III.B of Exhibit 1 to the Lower Basin DCP Agreement will also govern the operation of Lake Mead for CY 2024. Lower Basin projections for Lake Mead take into consideration updated water orders to reflect additional conservation efforts under the LC Conservation Program.

The 2024 operational tier determinations for Lake Powell and Lake Mead will be documented in the 2024 AOP, which is currently in development.

Current runoff projections into Lake Powell are provided by the National Weather Service's Colorado Basin River Forecast Center. The observed unregulated inflow into Lake Powell for the month of August was 0.307 maf or 82% of the 30-year average from 1991 to 2020. The September 2023 unregulated inflow forecast for Lake Powell is 0.40 maf or 116% of the 30-year average. The observed 2023 April through July unregulated inflow is 10.62 maf or 166% of average.

In this study, the CY 2023 diversion for Metropolitan Water District of Southern California (MWD) is projected to be 0.69maf. The CY 2023 diversion for the Central Arizona Project (CAP) is projected to be 0.84 maf. Consumptive use for Nevada above Hoover (SNWP Use) is projected to be 0.38 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 Rebecca Rogers at (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:

Danamain		Observed I	nflow (kaf)		Aug	Inflo	v Forecast	(kaf)	Obse	rved
Reservoir	May	Jun	Jul	Aug	%Avg	Sep	Oct	Nov	Apr-Jul	%Avg
Lake Powell	4520	3646	1054	304	81%	400	525	515	10619	166%
Fontenelle	323	412	141	74	114%	45	50	45	951	129%
Flaming Gorge	521	574	174	95	132%	55	60	56	1457	151%
Blue Mesa	327	312	117	49	85%	39	38	33	833	131%
Morrow Point	364	331	121	49	82%	41	40	35	901	131%
Crystal	406	357	128	52	79%	43	45	40	988	128%
Taylor Park	39	50	22	8.8	93%	7.5	7	5.5	118	126%
Vallecito	119	75	22	10.6	64%	9	10	8	252	142%
Navajo	488	249	46	-3.1	-99%	9	30	31	1028	163%
Lemon	32	23	4.9	2	51%	1.8	1.7	1.3	67	140%
McPhee	249	108	23	10	76%	8	6	4.5	527	207%
Ridgway	30	41	28	11.2	84%	7	6.7	5.4	110	120%
Deerlodge	1043	516	77	22	116%	22	35	35	2002	168%
Durango	218	178	75	23	71%	18	20	17	532	138%

The draft 2024 AOP is available online at:

https://www.usbr.gov/lc/region/g4000/AOP2024/AOP24 draft.pdf

The 2023 AOP is available online at:

https://www.usbr.gov/uc/water/rsvrs/ops/aop/AOP23.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 09 ucb.pdf.

Information on the LC Conservation Program is available online at:

https://www.usbr.gov/lc/LCBConservation.html.



#### September 2023 24-Month Study

Most Probable Inflow\*

#### **Fontenelle Reservoir**



	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)	
*	Sep 2022	29	2	61	0	61	6498.08	274	
	WY 2022		15	617	67	685			
Н	Oct 2022	40	1	22	39	61	6494.58	249	
	Nov 2022		1	10	48	58	6490.90	224	
S	Dec 2022		1	56	2	58	6486.14	194	
Т	Jan 2023		1	58	0	59	6481.53	167	
0	Feb 2023		0	10	43	53	6476.59	141	
R	Mar 2023		0	55	3	58	6470.02	113	
- 1	Apr 2023		1	61	0	61	6473.29	126	
С	May 2023		1	102	95	198	6494.66	250	
Α	Jun 2023		2	92	269	361	6501.41	299	
L	Jul 2023		3	86	41	127	6502.91	310	
*	Aug 2023		2	71	3	74	6502.60	308	
	· ·					71	6498.81	280	
	Sep 2023 WY 2023		2 <b>15</b>	71 <b>694</b>	<u>0</u> <b>544</b>	1239	0490.01	200	
			13						
	Oct 2023		1	68	0	68	6496.20	261	
	Nov 2023	45	1	67	0	67	6492.88	238	
	Dec 2023		1	71	0	71	6487.35	201	
	Jan 2024		1	71	0	71	6480.64	162	
	Feb 2024		0	66	0	66	6473.06	125	
	Mar 2024		0	69	0	69	6467.85	104	
	Apr 2024		1	34	18	53	6473.16	126	
	May 2024	150	1	97	0	97	6483.39	177	
	Jun 2024	295	2	103	90	192	6498.56	278	
	Jul 2024		3	102	21	123	6504.41	322	
	Aug 2024		2	92	0	92	6500.53	292	
	Sep 2024	40	2	71	0	71	6496.05	260	
	WY 2024	1035	15	911	130	1040			
	Oct 2024	46	1	0	55	55	6494.56	249	
	Nov 2024		1	0	62	62	6491.59	229	
	Dec 2024		1	20	49	69	6485.72	191	
	Jan 2025		1	69	0	69	6478.81	152	
	Feb 2025		0	62	0	62	6471.43	118	
	Mar 2025		0	56	0	56	6470.06	113	
	Apr 2025		1	38	8	46	6476.92	143	
	May 2025		1	92	0	92	6489.54	215	
	Jun 2025		2	105	117	222	6500.47	292	
	Jul 2025		3	101	17	118	6503.83	317	
	Aug 2025		2	78	0	78	6501.04	296	



#### September 2023 24-Month Study

Most Probable Inflow\*





	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)
*	Sep 2022	32	63	9	112	0	112	102	6013.01	2680	125
	WY 2022	897	837	70	927	60	987				2138
Н	Oct 2022	41	65	6	111	0	111	100	6011.45	2630	142
- 1	Nov 2022	40	63	3	102	0	102	98	6010.19	2590	132
S	Dec 2022	26	57	2	107	0	107	96	6008.59	2540	135
Т	Jan 2023	38	65	2	108	0	108	95	6007.19	2497	143
0	Feb 2023	33	58	2	98	0	98	93	6005.89	2457	134
R	Mar 2023	49	77	3	61	5	66	93	6006.15	2465	119
-1	Apr 2023	188	181	4	48	0	48	98	6010.17	2589	404
С	May 2023	521	397	7	49	0	49	111	6020.21	2917	1044
Α	Jun 2023	574	512	10	114	42	157	125	6029.59	3249	673
L	Jul 2023	174	166	13	75	1	76	128	6031.49	3323	168
*	Aug 2023	95	93	13	112	0	112	126	6030.69	3292	146
	Sep 2023	55	81	11	110	0	110	125	6029.69	3253	132
	WY 2023	1836	1815	75	1096	48	1143				3372
	Oct 2023	60	78	7	100	0	100	124	6028.94	3224	135
	Nov 2023	56	78	3	97	0	97	123	6028.37	3203	132
	Dec 2023	39	75	2	123	0	123	121	6027.04	3155	155
	Jan 2024	45	84	2	123	0	123	119	6025.94	3116	153
	Feb 2024	49	85	2	115	0	115	118	6025.07	3085	145
	Mar 2024	100	121	3	74	0	74	120	6026.27	3128	146
	Apr 2024	125	103	5	71	0	71	121	6026.99	3154	316
	May 2024	215	162	7	183	0	183	120	6026.23	3126	748
	Jun 2024	400	297	10	233	0	233	122	6027.70	3179	633
	Jul 2024	200	153	13	79	0	79	124	6029.30	3238	144
	Aug 2024	70	97	13	106	0	106	123	6028.77	3218	124
	Sep 2024	46	77	11	104	0	104	122	6027.77	3181	122
	WY 2024	1405	1410	77	1408	0	1408				2953
	Oct 2024	54	63	7	72	0	72	121	6027.35	3167	105
	Nov 2024	51	71	3	63	0	63	122	6027.48	3171	97
	Dec 2024	34	71	2	97	0	97	120	6026.73	3144	122
	Jan 2025	42	80	2	97	0	97	120	6026.23	3126	122
	Feb 2025	43	76	2	88	0	88	119	6025.86	3114	113
	Mar 2025	85	90	3	61	0	61	120	6026.57	3138	135
	Apr 2025	111	80	5	60	0	60	121	6027.00	3154	263
	May 2025	239	165	7	196	0	196	119	6025.96	3117	709
	Jun 2025	389	310	10	94	0	94	127	6031.28	3315	461
	Jul 2025	161	133	14	75	0	75	129	6032.37	3357	135
	Aug 2025	66	85	13	106	0	106	128	6031.54	3325	125



#### September 2023 24-Month Study

Most Probable Inflow\*

#### **Taylor Park Reservoir**



	Date	Regulated Inflow (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)
*	Sep 2022	5	8	9308.87	68
	WY 2022	110	100		
Н	Oct 2022	6	6	9308.80	68
- 1	Nov 2022	4	5	9308.13	67
S	Dec 2022	5	5	9307.68	66
Т	Jan 2023	4	5	9307.08	65
0	Feb 2023	4	5	9306.26	64
R	Mar 2023	4	5	9305.50	63
1	Apr 2023	7	9	9304.30	61
С	May 2023	39	20	9316.35	80
Α	Jun 2023	50	28	9328.01	102
L	Jul 2023	22	26	9326.25	99
*	Aug 2023	9	21	9319.91	87
	Sep 2023	8	18	9314.45	77
	WY 2023	162	153		
	Oct 2023	7	9	9313.43	75
	Nov 2023	6	6	9313.46	76
	Dec 2023	6	6	9313.37	75
	Jan 2024	5	6	9312.68	74
	Feb 2024	5	6	9312.34	74
	Mar 2024	5	6	9311.64	73
	Apr 2024	9	9	9311.64	73
	May 2024	29	15	9319.77	87
	Jun 2024	41	21	9330.16	107
	Jul 2024	16	24	9326.14	99
	Aug 2024	8	18	9320.87	89
	Sep 2024	6	18	9314.05	77
	WY 2024	143	144		
	Oct 2024	6	9	9312.25	74
	Nov 2024	5	5	9312.22	73
	Dec 2024	4	5	9311.45	72
	Jan 2025	5	5	9311.33	72
	Feb 2025	4	5	9310.83	71
	Mar 2025	5	5	9310.71	71
	Apr 2025	9	8	9311.64	73
	May 2025	26	14	9318.94	85
	Jun 2025	40	18	9330.40	107
	Jul 2025	15	24	9325.89	98
	Aug 2025	8	18	9320.59	88

# STREET OF THE ST

#### September 2023 24-Month Study

Most Probable Inflow\*

#### Blue Mesa Reservoir



		UnReg	Regulated	Evap	Power	Bypass	Total	Reservoir Elev	Live	_
	Data	Inflow	Inflow	Losses	Release	Release	Release	End of Month	Storage	
*	Date Sep 2022	(1000 Ac-Ft) 31	(1000 Ac-Ft)	(Ft) 7446.72	(1000 Ac-Ft)					
	WY 2022	661	652	6	566	28	595	7440.72	292	
H	Oct 2022	32	32	0	0	58	58	7441.74	266	
- 1	Nov 2022	26	27	0	1	10	11	7444.87	282	
S	Dec 2022	24	25	0	6	10	17	7446.44	290	
T	Jan 2023	24	25	0	20	0	20	7447.43	295	
0	Feb 2023	20	21	0	20	0	20	7447.61	296	
R	Mar 2023	25	26	0	19	0	19	7448.79	303	
ı	Apr 2023	77	79	1	23	0	23	7458.56	358	
С	May 2023	327	309	1	77	0	77	7491.44	589	
Α	Jun 2023	312	290	1	106	6	131	7510.36	747	
L	Jul 2023	117	120	1	125	1	126	7509.50	739	
*	Aug 2023	49	61	1	105	0	105	7504.26	694	
	Sep 2023	39	49	1	27	68	95	7498.59	647	
	WY 2023	1073	1064	8	529	153	701			
	Oct 2023	38	40	1	68	0	68	7495.06	618	
	Nov 2023	33	33	0	32	0	32	7495.10	618	
	Dec 2023	29	29	0	48	0	48	7492.67	599	
	Jan 2024	26	27	0	42	0	42	7490.74	583	
	Feb 2024	23	24	0	41	0	41	7488.47	566	
	Mar 2024	36	37	0	43	0	43	7487.65	559	
	Apr 2024	70	70	1	61	0	61	7488.68	567	
	May 2024	205	191	1	204	14	218	7485.02	539	
	Jun 2024	250	230	1	51	0	51	7507.00	717	
	Jul 2024	93		2			86	7508.53	731	
	Aug 2024	93 53	101 63	1	86 95	0 0	95	7508.53 7504.66	697	
	Sep 2024	34	63 46	1	95 92	0	95 92	7504.66 7499.10	651	
	WY 2024	890	891	9	864	14	878	7499.10	031	
		090		9	004	14				
	Oct 2024	35	38	1	68	0	68	7495.39	620	
	Nov 2024	31	31	0	36	0	36	7494.69	615	
	Dec 2024	26	27	0	52	0	52	7491.50	589	
	Jan 2025	25	25	0	49	0	49	7488.38	565	
	Feb 2025	23	24	0	44	0	44	7485.72	545	
	Mar 2025	38	38	0	40	0	40	7485.44	543	
	Apr 2025	78	77	1	54	0	54	7488.24	564	
	May 2025	204	192	1	204	28	232	7482.76	522	
	Jun 2025	251	229	1	63	0	63	7503.42	687	
	Jul 2025	86	95	1	84	0	84	7504.60	697	
	Aug 2025	55	65	1	87	0	87	7501.81	673	



#### September 2023 24-Month Study

Most Probable Inflow\*





	Date	Unreg Inflow (1000 Ac-Ft)	Blue Mesa Release (1000 Ac-Ft)	Side Inflow (1000 Ac-Ft)	Total Inflow	Power Release (1000 Ac-Ft)	Bypass Release (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month	Live Storage	
*	Sep 2022	31	82	(1000 AC-Ft)	83	78	0	78	( <b>Ft</b> ) 7157.81	(1000 Ac-Ft)	
	WY 2022	685	595	24	619	614	0	614	7 137.01	110	
Н	Oct 2022	33	58	1	59	60	0	60	7156.10	114	
ı	Nov 2022	27	11	1	12	21	0	21	7143.98	104	
S	Dec 2022	26	17	2	18	20	0	20	7141.82	103	
Т	Jan 2023	26	20	2	21	20	0	20	7144.03	105	
0	Feb 2023	21	20	1	21	18	0	18	7148.07	108	
R	Mar 2023	26	19	2	21	19	0	19	7149.91	109	
I	Apr 2023	85	23	8	31	30	0	30	7151.54	110	
С	May 2023	364	77	37	114	112	0	112	7153.72	112	
Α	Jun 2023	331	131	18	149	142	2	149	7153.53	112	
L	Jul 2023	121	126	4	130	130	0	130	7152.51	111	
*	Aug 2023	49	105	0	105	105	0	105	7152.17	111	
	Sep 2023	41	95	2	97	96	0	96	7153.73	112	
	WY 2023	1151	701	78	779	773	2	781			
	Oct 2023	40	68	2	70	70	0	70	7153.73	112	
	Nov 2023	35	32	2	34	34	0	34	7153.73	112	
	Dec 2023	31	48	2	50	50	0	50	7153.73	112	
	Jan 2024	28	42	2	44	44	0	44	7153.73	112	
	Feb 2024	25 25	42	2	43	43	0	43	7153.73	112	
	Mar 2024		43	4	43 47	43 47	0	43 47	7153.73	112	
	Apr 2024	40			47 71	47 71	0	71	7153.73		
	May 2024	80 230	61 218	10 25	243	243	0	243	7153.73	112 112	
	Jun 2024		51				0	71	7153.72	112	
		270		20	71	71					
	Jul 2024 Aug 2024	99 56	86 05	6 3	92	92 98	0 0	92 98	7153.73 7153.73	112 112	
			95 92		98		0				
	Sep 2024	36	92 878	2	94 <b>958</b>	94	0	94	7153.73	112	
	WY 2024	970	0/8	80	908	957	U	957			
	Oct 2024	37	68	2	70	70	0	70	7153.73	112	
	Nov 2024	32	36	1	37	37	0	37	7153.73	112	
	Dec 2024	27	52	1	53	53	0	53	7153.73	112	
	Jan 2025	26	49	1	50	50	0	50	7153.73	112	
	Feb 2025	25	44	2	46	46	0	46	7153.73	112	
	Mar 2025	40	40	2	42	42	0	42	7153.73	112	
	Apr 2025	89	54	11	65	65	0	65	7153.73	112	
	May 2025	226	232	22	254	254	0	254	7153.73	112	
	Jun 2025	265	63	14	77	77	0	77	7153.72	112	
	Jul 2025	90	84	4	88	87	0	87	7153.73	112	
	Aug 2025	56	87	1	88	88	0	88	7153.73	112	



# September 2023 24-Month Study

Most Probable Inflow\*

# Crystal Reservoir



		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
		(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)
*	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
Н	Oct 2022	36	60	3	63	53	10	63	6751.29	16	41	21
-1	Nov 2022	29	21	2	23	21	2	23	6752.92	17	0	21
S	Dec 2022	28	20	2	22	22	0	22	6751.64	17	2	21
Т	Jan 2023	28	20	2	22	22	0	22	6751.37	16	2	21
0	Feb 2023	23	18	2	20	4	16	20	6751.71	17	1	19
R	Mar 2023	29	19	2	22	0	22	22	6751.16	16	2	21
1	Apr 2023	97	30	12	42	20	21	41	6752.29	17	19	22
С	May 2023	406	112	42	154	108	41	155	6751.26	16	48	111
Α	Jun 2023	357	149	26	176	119	34	174	6757.16	18	63	123
L	Jul 2023	128	130	7	137	117	20	138	6752.61	17	67	76
*	Aug 2023	52	105	3	108	108	0	108	6751.75	17	66	44
	Sep 2023	43	96	2	98	97	0	97	6753.04	17	55	42
	WY 2023	1257	781	106	887	691	167	886			366	543
	Oct 2023	45	70	5	75	52	23	75	6753.04	17	55	20
	Nov 2023	40	34	5	39	39	0	39	6753.04	17	0	39
	Dec 2023	36	50	5	55	55	0	55	6753.04	17	0	55
	Jan 2024	33	44	5	49	49	0	49	6753.04	17	0	49
	Feb 2024	28	43	3	46	46	0	46	6753.04	17	0	46
	Mar 2024	47	47	7	54	54	0	54	6753.04	17	5	49
	Apr 2024	91	71	11	82	82	0	82	6753.04	17	42	40
	May 2024	265	243	35	278	134	144	278	6753.04	17	62	216
	Jun 2024	305	71	35	106	106	0	106	6753.03	17	61	45
	Jul 2024	110	92	11	103	103	0	103	6753.04	17	65	38
	Aug 2024	61	98	5	103	103	0	103	6753.04	17	65	38
	Sep 2024	39	94	3	97	96	0	96	6753.04	17	55	41
	WY 2024	1100	957	130	1087	920	166	1087			410	677
	Oct 2024	41	70	4	74	56	17	74	6753.04	17	55	19
	Nov 2024	36	37	4	41	41	0	41	6753.04	17	0	41
	Dec 2024	32	53	5	58	58	0	58	6753.04	17	0	58
	Jan 2025	31	50	5	55	55	0	55	6753.04	17	0	55
	Feb 2025	29	46	4	50	50	0	50	6753.04	17	0	50
	Mar 2025	46	42	6	48	48	0	48	6753.04	17	5	43
	Apr 2025	100	65	11	76	76	0	76	6753.04	17	42	34
	May 2025	251	254	25	279	134	145	279	6753.04	17	62	217
	Jun 2025	293	77	28	105	105	0	105	6753.03	17	61	44
	Jul 2025	98	87	8	95	95	0	95	6753.04	17	65	30
	Aug 2025	63	88	7	95	95	0	95	6753.04	17	65	30



# September 2023 24-Month Study

Most Probable Inflow\*

# Vallecito Reservoir



	Data	Regulated Inflow (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage
*	Date Sep 2022	12	26	7630.15	(1000 Ac-Ft) 45
	WY 2022	185	160		
Н	Oct 2022	14	3	7635.84	56
1	Nov 2022	7	0	7639.00	62
S	Dec 2022	5	0	7641.15	67
Т	Jan 2023	5	0	7643.44	72
0	Feb 2023	5	2	7644.74	75
R	Mar 2023	7	36	7630.44	46
1	Apr 2023	36	45	7625.05	36
С	May 2023	119	64	7651.55	91
Α	Jun 2023	75	41	7664.54	124
L	Jul 2023	22	37	7658.55	108
*	Aug 2023	11	38	7647.43	81
	Sep 2023	10	29	7638.94	62
	WY 2023	315	295		
	Oct 2023	10	17	7635.30	55
	Nov 2023	7	2	7637.85	60
	Dec 2023	6	2	7639.81	64
	Jan 2024	5	2	7641.25	67
	Feb 2024	5	2	7642.71	70
	Mar 2024	9	2	7645.81	77
	Apr 2024	21	2	7653.70	96
	May 2024	61	39	7662.21	118
	Jun 2024	56	65	7658.75	109
	Jul 2024	19	41	7649.51	86
	Aug 2024	14	38	7638.78	62
	Sep 2024	14	29	7630.79	46
	WY 2024	227	240		
	Oct 2024	12	16	7628.16	42
	Nov 2024	9	2	7632.17	49
	Dec 2024	7	2	7634.85	54
	Jan 2025	6	2	7636.92	58
	Feb 2025	5	2	7638.50	61
	Mar 2025	10	2	7642.24	69
	Apr 2025	23	2	7651.26	90
	May 2025	68	42	7661.13	115
	Jun 2025	62	62	7660.77	114
	Jul 2025	21	42	7652.48	93
	Aug 2025	15	38	7642.53	70



#### September 2023 24-Month Study

Most Probable Inflow\*

#### Navajo Reservoir



	Date	Mod Unreg Inflow (1000 Ac-Ft)	Azotea Tunnel Div (1000 Ac-Ft)	Reg Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	NIIP Diversion (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)	Farmington Flow (1000 Ac-Ft)	
*	Sep 2022	22	1	35	2	23	40	6020.65	872	56	
	WY 2022	574	66	484	20	200	296			595	
Н	Oct 2022	44	2	32	1	5	33	6019.84	865	51	
- 1	Nov 2022	23	0	16	1	0	19	6019.52	862	37	
S	Dec 2022	17	0	13	0	0	22	6018.45	852	37	
Т	Jan 2023	20	0	15	0	0	20	6017.85	847	34	
0	Feb 2023	18	0	15	1	1	17	6017.38	843	31	
R	Mar 2023	71	0	98	1	3	18	6025.86	920	45	
- 1	Apr 2023	245	24	235	2	8	21	6045.83	1124	109	
С	May 2023	488	59	376	3	28	128	6063.70	1340	345	
Α	Jun 2023	249	47	163	4	38	168	6060.10	1294	342	
L	Jul 2023	46	11	49	4	45	32	6057.46	1261	82	
*	Aug 2023		1	23	3	42	42	6052.15	1196	48	
	Sep 2023	26	0	44	3	24	38	6050.45	1176	56	
	WY 2023		144	1079	24	194	556	0000.10	1170	1216	
	Oct 2023		1	35	2	9	21	6050.75	1180	38	
	Nov 2023		1	20	1	0	18	6050.84	1181	32	
	Dec 2023	21	0	16	1	0		6050.62		31	
				16	1		18		1178		
	Jan 2024	19	0	22	·	0	18	6050.33	1175	30	
	Feb 2024	26	1	70	1	0	17	6050.64	1179	28	
	Mar 2024	83	5	97	2	6	18	6054.42	1223	38	
	Apr 2024		16		2	21	18	6058.91	1279	64	
	May 2024	226	32	172	4	36	18	6067.64	1393	139	
	Jun 2024	168	23	153	5	52	18	6073.31	1472	148	
	Jul 2024	29	2	50	5	55	29	6070.52	1433	75	
	Aug 2024		2	43	4	46	32	6067.67	1393	58	
	Sep 2024	28	1	42	3	25	76	6063.06	1332	100	
	WY 2024	808	85	736	28	250	302			782	
	Oct 2024	33	2	36	2	9	19	6063.58	1339	41	
	Nov 2024	29	1	21	1	0	18	6063.74	1341	35	
	Dec 2024	24	0	19	1	0	18	6063.71	1340	33	
	Jan 2025	22	0	18	1	0	18	6063.60	1339	31	
	Feb 2025	29	1	25	1	0	17	6064.14	1346	29	
	Mar 2025	92	10	74	2	5	18	6067.75	1394	41	
	Apr 2025	147	18	107	3	21	18	6072.50	1460	69	
	May 2025	251	34	191	4	35	229	6066.94	1383	364	
	Jun 2025	187	25	163	4	51	232	6057.33	1259	376	
	Jul 2025	33	2	51	4	55	29	6054.28	1222	80	
	Aug 2025	24	1	45	3	47	33	6051.12	1184	62	



#### September 2023 24-Month Study

Most Probable Inflow\*

#### **Lake Powell**



		Unreg	Regulated	Evap	PowerPlant	Bypass	Total	Reservoir Elev	Bank	EOM	Lees	
		Inflow	Inflow	Losses	Release	Release	Release	End of Month	Storage	Storage	Ferry Gage	
±.		(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)	
	Sep 2022	245	420	24	547	0	547	3529.33	4517	5797	562	
	WY 2022	6084	6107	203	6999	0	6999				7066	
Н	Oct 2022	437	535	17	480	0	480	3529.92	4520	5832	494	
- 1	Nov 2022	349	394	17	498	0	498	3528.02	4511	5720	507	
S	Dec 2022	281	358	13	550	0	550	3524.75	4496	5531	560	
Т	Jan 2023	361	424	4	500	0	501	3523.45	4490	5456	510	
0	Feb 2023	270	337	4	480	0	480	3521.04	4479	5320	493	
R	Mar 2023	573	552	6	486	0	486	3522.02	4484	5375	500	
1	Apr 2023	1399	1103	10	819	90	909	3524.99	4497	5544	929	
С	May 2023	4520	3634	15	1088	0	1088	3561.42	4685	7888	1107	
Α	Jun 2023	3646	2916	31	1064	0	1064	3583.47	4820	9574	1083	
L	Jul 2023	1054	923	40	1149	0	1149	3580.42	4800	9328	1168	
*	Aug 2023	307	454	39	902	0	902	3574.71	4764	8878	914	
	Sep 2023	400	545	35	544	0	544	3574.31	4761	8847	559	
	WY 2023	13598	12174	230	8560	90	8651				8827	
	O-+ 2022	EDE	507	24	490	0	490	2575 42	4760	8933	406	
	Oct 2023	525	597	24	480	0 0	480	3575.42	4768		496	
	Nov 2023	515	548 501	24	500		500 600	3575.71 3574.30	4770 4761	8955 8846	505	
	Dec 2023 Jan 2024	400 380	501 474	19	600 723	0		3574.30	4761 4743	8846	603 727	
	Feb 2024	425	501	6 6	639	0 0	723 639	3569.46	4743 4732	8610 8477	650	
	Mar 2024	590	517		675		675	3567.38	4732 4719	8322	689	
	Apr 2024	950		10 16	601	0 0			47 19 4734	8501	618	
		2200	811 2041	16 20	599	0	601 599	3569.78 3586.43	4839	9817	620	
	May 2024		2008				628	3600.43		11062		
	Jun 2024 Jul 2024	2450 850		36 47	628 709	0 0		3600.78 3601.02	4939 4940	11062	645 724	
	Jul 2024 Aug 2024	365	779 502	47 46	709 758	0	709 758	3597.90	4940 4918	1083	724 772	
	Sep 2024	350	539	40	756 568	0	756 568	3597.90	4916	10738	772 584	
	WY 2024	10000	9819	297	7480	0	7480	3337.10	4913	10/30	7633	
	Oct 2024	447	493	29	643	0	643	3595.28	4899	10572	659	
	Nov 2024	466	473	28	642	0	642	3593.19	4885	10390	647	
	Dec 2024	361	445	22	715	0	715	3590.05	4863	10120	718	
	Jan 2025	350	426	6	857	0	857	3585.19	4831	9715	861	
	Feb 2025	397	452	7	752	6	758	3581.63	4808	9425	769	
	Mar 2025	614	534	11	801	0	801	3578.41	4787	9168	815	
	Apr 2025	920	755	18	713	0	713	3578.70	4789	9190	730	
	May 2025	2060	2093	22	710	0	710	3593.89	4890	10451	731	
	Jun 2025	2423	2061	39	745	0	745	3606.98	4984	11633	762	
	Jul 2025	711	676	48	842	0	842	3604.85	4968	11434	857	
	Aug 2025	371	500	47	900	0	900	3600.32	4935	11020	914	



#### September 2023 24-Month Study

Most Probable Inflow\*

#### **Hoover Dam - Lake Mead**



		Glen	Side Inflow	Evap	Total	Total	SNWP	Downstream	Bank	Reservoir Elev	ЕОМ
		Release	Glen to Hoover	Losses	Release	Release	Use	Requirements	Storage	End of Month	Storage
	Date	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 CFS)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	(1000 Ac-Ft)
*	Sep 2022	547	117	48	539	9.1	21	545	476	1045.03	7328
	WY 2022	6999	787	463	8899		222	8888			
Н	Oct 2022	480	94	46	418	6.8	16	434	482	1046.28	7417
- 1	Nov 2022	498	18	40	713	12.0	8	714	467	1043.02	7187
S	Dec 2022	550	63	32	438	7.1	8	439	475	1044.82	7313
Т	Jan 2023	501	103	22	412	6.7	7	413	485	1046.97	7466
0	Feb 2023	480	46	21	494	8.9	8	493	485	1047.02	7469
R	Mar 2023	486	226	23	754	12.3	11	749	481	1046.03	7399
- 1	Apr 2023	909	243	31	831	14.0	12	830	498	1049.69	7661
С	May 2023	1088	185	40	855	13.9	22	772	520	1054.28	7995
Α	Jun 2023	1064	62	50	886	14.9	23	874	530	1056.39	8152
L	Jul 2023	1149	61	48	760	12.4	30	758	553	1061.02	8501
*	Aug 2023	902	114	54	580	9.4	27	579	574	1065.35	8834
	Sep 2023	544	72	53	509	8.6	39	509	575	1065.52	8847
	WY 2023	8651	1286	458	7649		212	7565			
	Oct 2023	480	77	50	509	8.3	75	509	570	1064.59	8775
	Nov 2023	500	63	44	602	10.1	62	602	562	1062.84	8640
	Dec 2023	600	72	35	363	5.9	61	363	575	1065.42	8839
	Jan 2024	723	75	25	549	8.9	11	549	588	1067.99	9040
	Feb 2024	639	71	23	533	9.3	8	533	597	1069.72	9177
	Mar 2024	675	97	25	877	14.3	14	877	588	1068.00	9042
	Apr 2024	601	60	34	1002	16.8	16	1002	564	1063.30	8675
	May 2024	599	37	41	982	16.0	20	982	539	1058.27	8292
	Jun 2024	628	22	50	892	15.0	28	892	519	1054.23	7992
	Jul 2024	709	55	47	786	12.8	32	786	513	1052.93	7896
	Aug 2024	758	86	51	749	12.2	34	749	514	1053.06	7906
	Sep 2024	568	72	50	647	10.9	30	647	509	1051.95	7824
	WY 2024	7480	786	475	8490		391	8490			
	Oct 2024	643	77	47	459	7.5	24	459	520	1054.37	8002
	Nov 2024	642	63	42	585	9.8	14	585	524	1055.19	8063
	Dec 2024	715	72	34	517	8.4	9	517	538	1058.05	8276
	Jan 2025	857	75	24	566	9.2	10	566	558	1062.15	8587
	Feb 2025	758	71	23	537	9.7	7	537	574	1065.34	8833
	Mar 2025	801	97	25	881	14.3	13	881	573	1065.08	8813
	Apr 2025	713	60	33	1006	16.9	15	1006	556	1061.66	8549
	May 2025	710	37	41	986	16.0	19	986	537	1057.95	8268
	Jun 2025	745	22	50	896	15.1	26	896	525	1055.36	8075
	Jul 2025	842	55	48	791	12.9	30	791	527	1055.72	8102
	Aug 2025	900	86	52	753	12.2	32	753	536	1057.59	8242



#### September 2023 24-Month Study

Most Probable Inflow\*

#### **Davis Dam - Lake Mohave**



	Dete	Hoover Release	Side Inflow	Evap Losses	Power Release	Spill Release	Total Release	Total Release	Reservoir Elev End of Month	EOM Storage	
*	Date Sep 2022	(1000 Ac-Ft) 539	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 CFS)	(Ft) 639.17	(1000 Ac-Ft) 1595	
	WY 2022	8899	-0 -222	151	8494	0	8494	10.4	039.17	1090	
Н	Oct 2022	418	-2	14	541	0	541	8.8	633.78	1454	
- 1	Nov 2022	713	-15	13	516	0	516	8.7	640.22	1623	
S	Dec 2022	438	4	13	436	0	436	7.1	639.97	1617	
Т	Jan 2023	412	2	9	347	0	347	5.6	642.12	1675	
0	Feb 2023	494	-18	8	429	0	444	8.0	643.00	1699	
R	Mar 2023	754	-6	10	705	0	705	11.5	644.17	1731	
- 1	Apr 2023	831	-10	13	844	0	844	14.2	642.84	1694	
С	May 2023	855	-10	14	833	0	859	14.0	641.83	1667	
Α	Jun 2023	886	-15	14	819	0	819	13.8	643.22	1705	
L	Jul 2023	760	-15	12	736	0	736	12.0	643.06	1700	
*	Aug 2023	580	-14	16	555	0	555	9.0	642.86	1695	
	Sep 2023	509	-6	16	591	0	591	9.9	639.01	1591	
	WY 2023	7649	-107	152	7353	0	7394				
	Oct 2023	509	-11	14	563	0	563	9.2	636.00	1512	
	Nov 2023	602	-16	13	467	0	467	7.8	640.01	1618	
	Dec 2023	363	-2	13	349	0	349	5.7	640.01	1617	
	Jan 2024	549	-11	9	480	0	480	7.8	641.80	1666	
	Feb 2024	533	-13	8	513	0	513	8.9	641.80	1666	
	Mar 2024	877	-10	10	822	0	822	13.4	643.05	1700	
	Apr 2024	1002	-14	13	977	0	977	16.4	643.00	1699	
	May 2024	982	-13	14	954	0	954	15.5	643.00	1699	
	Jun 2024	892	-21	14	857	0	857	14.4	643.00	1699	
	Jul 2024	786	-21	12	780	0	780	12.7	642.00	1671	
	Aug 2024	749	-17	15	717	0	717	11.7	642.00	1671	
	Sep 2024	647	-6	16	678	0	678	11.4	640.01	1617	
	WY 2024	8490	-154	151	8157	0	8157		0.0.0.		
								40.0	000.00	4404	
	Oct 2024	459	-11	14	617	0	617	10.0	633.00	1434	
	Nov 2024	585	-16	13	505	0	505	8.5	635.00	1486	
	Dec 2024	517	-2	13	384	0	384	6.3	639.51	1604	
	Jan 2025	566	-11	9	485	0	485	7.9	641.80	1666	
	Feb 2025	537	-13	8	517	0	517	9.3	641.80	1666	
	Mar 2025	881	-10	10	826	0	826	13.4	643.05	1700	
	Apr 2025	1006	-14	13	981	0	981	16.5	643.00	1699	
	May 2025	986	-13	14	959	0	959	15.6	643.00	1699	
	Jun 2025	896	-21	14	861	0	861	14.5	643.00	1699	
	Jul 2025	791	-21	12	784	0	784	12.8	642.00	1671	
	Aug 2025	753	-17	15	721	0	721	11.7	642.00	1671	



#### September 2023 24-Month Study

Most Probable Inflow\*

#### Parker Dam - Lake Havasu



	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)
*	Sep 2022	617	15	15	458	7.7	103	52	447.96	579	108	1.8
	WY 2022	8494	176	140	6231		1117	1112			1499	
Н	Oct 2022	541	26	12	393	6.4	106	66	447.14	564	67	1.1
I	Nov 2022	516	1	9	336	5.6	103	67	447.09	563	89	1.5
S	Dec 2022	436	14	7	277	4.5	101	63	447.06	562	87	1.4
Т	Jan 2023	347	16	6	261	4.2	54	40	447.14	564	125	2.0
0	Feb 2023	444	1	8	370	6.7	16	40	447.47	570	130	2.3
R	Mar 2023	705	39	9	553	9.0	70	91	448.31	586	168	2.7
1	Apr 2023	844	50	11	669	11.2	49	169	447.68	574	153	2.6
С	May 2023	859	31	13	655	10.7	73	166	446.26	547	135	2.2
Α	Jun 2023	819	16	15	636	10.7	70	69	448.25	585	130	2.2
L	Jul 2023	736	18	17	634	10.3	70	22	448.36	587	131	2.1
*	Aug 2023	555	24	17	485	7.9	61	19	447.78	576	106	1.7
	Sep 2023	591	12	15	488	8.2	42	53	447.50	570	91	1.5
	WY 2023	7394	248	139	5756		815	865			1412	
	Oct 2023	563	21	12	462	7.5	42	61	447.50	571	68	1.1
	Nov 2023	467	14	9	361	6.1	56	50	447.50	570	84	1.4
	Dec 2023	349	17	7	259	4.2	58	57	446.50	552	84	1.4
	Jan 2024	480	7	6	313	5.1	86	76	446.50	552	138	2.2
	Feb 2024	513	4	8	411	7.1	8	84	446.50	552	124	2.2
	Mar 2024	822	2	9	608	9.9	98	96	446.70	555	147	2.4
	Apr 2024	977	7	11	727	12.2	89	109	448.70	593	147	2.5
	May 2024	954	4	13	734	11.9	85	115	448.70	593	110	1.8
	Jun 2024	857	10	16	714	12.0	82	44	448.70	593	116	2.0
	Jul 2024	780	17	17	686	11.2	85	11	448.00	580	123	2.0
	Aug 2024	717	19	17	621	10.1	85	11	447.50	571	102	1.7
	Sep 2024	678	12	15	533	9.0	82	50	447.50	570	99	1.7
	WY 2024		134	139	6428	0.0	854	764		0.0	1342	
	Oct 2024	617	21	12	482	7.8	85	52	447.50	571	89	1.4
	Nov 2024	505	14	9	375	6.3	82	48	447.50	570	115	1.9
	Dec 2024	384	17	7	270	4.4	85	54	446.50	552	110	1.8
	Jan 2025	485	7	6	313	5.1	90	76	446.50	552	138	2.2
	Feb 2025	517	4	8	411	7.4	12	84	446.50	552	124	2.2
	Mar 2025	826	2	9	608	9.9	102	97	446.70	555	147	2.4
	Apr 2025	981	7	11	726	12.2	93	109	448.70	593	147	2.5
	May 2025	959	4	13	733	11.9	89	115	448.70	593	110	1.8
	Jun 2025	861	10	16	733 714	12.0	86	44	448.70	593	116	2.0
	Jul 2025	784	17	17	686	11.2	89	11	448.00	580	123	2.0
	Aug 2025	70 <del>4</del> 721	17	17	621	10.1	69 89	11				2.0 1.7
	Aug 2025	121	19	17	021	10.1	89	1.1	447.50	571	102	1.1



#### September 2023 24-Month Study

Most Probable Inflow\*

#### **Hoover Dam - Lake Mead**



		Power	Power	Reservoir Elev		Change In	Hoover	Hoover Gen	Hoover	Percent of	
	Date	Release (1000 Ac-Ft)	Release (1000 CFS)	End of Month (Ft)	Storage (1000 Ac-Ft)	Storage (1000 Ac-Ft)	Static Head (Ft)	Capacity MW	Gross Energy MKWH	Units Available	KWH/AF
*	Sep 2022	<u> </u>	9.1	1045.03	7328	53	400.65	1157.3	188.5	88	349.7
	WY 2022		0.1	1040.00	7020		400.00	1107.0	3240.9		040.7
			0.0	4040.00	7447		400.00			70	0.40.0
H	Oct 2022		6.8	1046.28	7417	88	402.36	924.5	145.8	70	348.8
ı	Nov 2022		12.0	1043.02	7187	-230	395.39	948.8	254.6	72	357.1
S	Dec 2022		7.1	1044.82	7313	126	403.20	975.8	152.9	72	348.9
T	Jan 2023		6.7	1046.97	7466	152	403.66	866.6	143.8	64	348.8
0	Feb 2023		8.9	1047.02	7469	4	399.03	810.5	175.9	60	356.5
R	Mar 2023		12.3	1046.03	7399	-70	397.62	863.6	270.4	65	358.8
ı	Apr 2023		14.0	1049.69	7661	262	402.80	839.3	300.5	65	361.7
С	May 2023		13.9	1054.28	7995	335	405.85	986.6	313.1	71	366.3
Α	Jun 2023		14.9	1056.39	8152	156	407.42	1080.0	326.9	78	369.0
L	Jul 2023		12.4	1061.02	8501	349	413.93	1283.0	280.8	90	369.5
*	Aug 2023	580	9.4	1065.35	8834	333	420.26	1308.1	212.8	90	366.9
	Sep 2023	509	8.6	1065.52	8847	13	415.60	1160.0	185.7	79	364.7
	WY 2023	7649							2763.2		
	Oct 2023	509	8.3	1064.59	8775	-72	420.25	776.4	195.0	53	382.9
	Nov 2023	602	10.1	1062.84	8640	-135	418.59	776.4	229.4	53	381.1
	Dec 2023	363	5.9	1065.42	8839	200	415.81	1047.0	131.2	71	361.2
	Jan 2024	549	8.9	1067.99	9040	201	418.70	921.1	204.3	62	372.4
	Feb 2024	533	9.3	1069.72	9177	137	419.53	1027.0	199.1	69	373.6
	Mar 2024	877	14.3	1068.00	9042	-136	417.82	1203.0	336.2	81	383.5
	Apr 2024	1002	16.8	1063.30	8675	-366	412.29	1446.0	369.2	100	368.6
	May 2024	982	16.0	1058.27	8292	-383	407.49	1418.0	361.3	100	368.0
	Jun 2024	892	15.0	1054.23	7992	-301	403.01	1390.0	321.8	100	360.8
	Jul 2024	786	12.8	1052.93	7896	-96	400.69	1399.4	283.3	100	360.3
	Aug 2024	749	12.2	1053.06	7906	10	400.43	1399.4	268.2	100	358.2
	Sep 2024	647	10.9	1051.95	7824	-81	400.59	1386.6	228.9	100	353.8
	WY 2024	8490							3127.9		
	Oct 2024	459	7.5	1054.37	8002	178	407.73	830.0	168.5	60	366.8
	Nov 2024	585	9.8	1055.19	8063	60	411.63	830.0	217.5	60	371.6
	Dec 2024		8.4	1058.05	8276	213	410.98	886.5	193.2	63	373.5
	Jan 2025	566	9.2	1062.15	8587	312	412.25	899.4	208.5	63	368.3
	Feb 2025		9.7	1065.34	8833	246	414.36	1029.7	199.3	70	371.0
	Mar 2025		14.3	1065.08	8813	-20	413.65	1271.3	333.7	87	378.8
	Apr 2025	1006	16.9	1061.66	8549	-264	411.40	1254.9	373.0	87	370.9
	May 2025	986	16.0	1057.95	8268	-281	407.86	1236.4	359.4	87	364.6
	Jun 2025	896	15.1	1055.36	8075	-193	404.76	1217.6	327.0	87	365.0
	Jul 2025	791	12.9	1055.72	8102	27	402.62	1402.0	286.5	100	362.4
	Aug 2025	753	12.2	1057.59	8242	140	404.06	1415.2	272.5	100	361.9



#### September 2023 24-Month Study

Most Probable Inflow\*

#### **Davis Dam - Lake Mohave**



		Power Release	Power Release	Reservoir Elev End of Month	EOM Storage	Change In Storage	Davis Static Head	Davis Gen Capacity	Davis Gross Energy	Percent of Units		
		(1000 Ac-Ft)	(1000 CFS)		(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	MW	MKWH	Available	KWH/AF	
*	Sep 2022	617	10.4	639.17	1595	-100	137.50	248.2	78.5	97	127.3	
	WY 2022	8494							1074.5			
Н	Oct 2022	541	8.8	633.78	1454	-141	134.35	185.9	66.9	73	123.5	
- 1	Nov 2022	516	8.7	640.22	1623	169	141.13	154.7	62.5	61	121.1	
S	Dec 2022	436	7.1	639.97	1617	-7	140.89	159.6	53.9	63	123.5	
Т	Jan 2023	347	5.6	642.12	1675	58	143.26	157.9	44.3	62	127.7	
0	Feb 2023	429	8.0	643.00	1699	24	141.81	185.8	56.7	73	132.3	
R	Mar 2023	705	11.5	644.17	1731	32	141.44	215.5	93.4	85	132.4	
-1	Apr 2023	844	14.2	642.84	1694	-36	138.90	255.0	108.3	100	128.3	
С	May 2023	833	14.0	641.83	1667	-28	137.48	255.0	109.4	100	131.4	
Α	Jun 2023	819	13.8	643.22	1705	38	141.71	249.9	103.9	98	126.9	
L	Jul 2023	736	12.0	643.06	1700	-4	143.75	250.1	94.0	98	127.6	
*	Aug 2023	555	9.0	642.86	1695	-5	143.43	255.0	71.5	100	128.7	
	Sep 2023	591	9.9	639.01	1591	-104	139.11	204.0	74.0	80	125.3	
	WY 2023	7353							938.8			
	Oct 2023	563	9.2	636.00	1512	-79	136.00	189.2	69.0	74	122.5	
	Nov 2023	467	7.8	640.01	1618	106	137.07	154.7	57.7	61	123.5	
	Dec 2023	349	5.7	640.01	1617	0	140.08	156.3	44.0	61	126.2	
	Jan 2024	480	7.8	641.80	1666	49	139.99	164.5	60.6	65	126.1	
	Feb 2024	513	8.9	641.80	1666	0	140.40	167.1	64.8	66	126.5	
	Mar 2024	822	13.4	643.05	1700	34	139.26	210.6	103.1	83	125.5	
	Apr 2024	977	16.4	643.00	1699	-2	138.79	255.0	122.2	100	125.0	
	May 2024	954	15.5	643.00	1699	0	139.07	255.0	119.6	100	125.3	
	Jun 2024	857	14.4	643.00	1699	0	139.46	255.0	107.7	100	125.6	
	Jul 2024	780	12.7	642.00	1671	-27	139.58	255.0	98.1	100	125.8	
	Aug 2024	717	11.7	642.00	1671	0	139.48	255.0	90.0	100	125.7	
	Sep 2024	678	11.4	640.01	1617	-54	138.58	255.0	84.7	100	124.9	
	WY 2024	8157							1021.5			
	Oct 2024	617	10.0	633.00	1434	-183	134.64	227.0	74.9	89	121.3	
	Nov 2024	505	8.5	635.00	1486	51	132.78	159.8	60.5	63	119.6	
	Dec 2024	384	6.3	639.51	1604	118	137.05	154.7	47.5	61	123.5	
	Jan 2025	485	7.9	641.80	1666	62	139.71	156.3	61.0	61	125.9	
	Feb 2025	517	9.3	641.80	1666	0	140.23	156.6	65.3	61	126.3	
	Mar 2025	826	13.4	643.05	1700	34	139.23	194.1	103.7	76	125.4	
	Apr 2025	981	16.5	643.00	1699	-2	138.77	249.9	122.7	98	125.0	
	May 2025	959	15.6	643.00	1699	0	139.04	255.0	120.1	100	125.3	
	Jun 2025	861	14.5	643.00	1699	0	139.44	255.0	108.2	100	125.6	
	Jul 2025	784	12.8	642.00	1671	-27	139.56	255.0	98.6	100	125.7	
	Aug 2025	721	11.7	642.00	1671	0	139.46	255.0	90.6	100	125.6	



# September 2023 24-Month Study

Most Probable Inflow\*

#### Parker Dam - Lake Havasu



	D. I	Power Release	Power Release	Reservoir Elev End of Month	Storage	Change In Storage	Parker Static Head	Parker Gen Capacity	Parker Gross Energy	Percent of Units	10411114	
+		(1000 Ac-Ft)	(1000 CFS)	(Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	MW	MKWH	Available	KWH/AF	
	Sep 2022	458	7.7	447.96	579	-4	81.26	120.0	31.4	100	68.7	
	WY 2022	6231							431.0			
Н	Oct 2022	393	6.4	447.14	564	-15	81.28	91.9	27.2	77	69.1	
- 1	Nov 2022	336	5.6	447.09	563	-1	82.54	82.0	22.8	68	68.0	
S	Dec 2022	277	4.5	447.06	562	0	82.38	60.0	18.5	50	66.8	
Т	Jan 2023	261	4.2	447.14	564	2	81.41	72.6	17.3	60	66.4	
0	Feb 2023	357	6.7	447.47	570	6	81.43	94.3	25.4	79	71.2	
R	Mar 2023	553	9.0	448.31	586	16	81.24	120.0	38.6	100	69.8	
-1	Apr 2023	669	11.2	447.68	574	-12	79.27	120.0	46.4	100	69.4	
С	May 2023	655	10.7	446.26	547	-26	78.52	116.1	45.3	97	69.2	
Α	Jun 2023	636	10.7	448.25	585	37	79.10	120.0	44.0	100	69.2	
L	Jul 2023	634	10.3	448.36	587	2	82.12	120.0	44.1	100	69.6	
*	Aug 2023	485	7.9	447.78	576	-11	81.56	120.0	33.5	100	69.1	
	Sep 2023	488	8.2	447.50	570	-5	79.31	120.0	34.1	100	69.7	
	WY 2023	5743							397.2			
	Oct 2023	462	7.5	447.50	571	0	79.49	91.0	32.4	76	70.3	
	Nov 2023	361	6.1	447.50	570	0	80.19	81.0	24.8	68	68.7	
	Dec 2023	259	4.2	446.50	552	-19	80.68	60.0	16.5	50	63.7	
	Jan 2024	313	5.1	446.50	552	0	79.71	73.5	20.9	61	66.8	
	Feb 2024	411	7.1	446.50	552	0	78.66	96.2	28.4	80	69.1	
	Mar 2024	608	9.9	446.70	555	4	77.53	120.0	41.7	100	68.6	
	Apr 2024	727	12.2	448.70	593	38	77.71	120.0	50.5	100	69.5	
	May 2024	734	11.9	448.70	593	0	78.82	120.0	51.5	100	70.2	
	Jun 2024	714	12.0	448.70	593	0	78.79	120.0	50.1	100	70.2	
	Jul 2024	686	11.2	448.00	580	-13	78.77	120.0	47.9	100	69.8	
	Aug 2024	621	10.1	447.50	571	-10	78.59	120.0	43.1	100	69.4	
	Sep 2024	533	9.0	447.50	570	0	78.83	120.0	36.9	100	69.3	
	WY 2024	6428							444.9			
	Oct 2024	482	7.8	447.50	571	0	79.34	90.0	33.8	75	70.1	
	Nov 2024	375	6.3	447.50	570	0	80.08	92.0	25.7	77	68.6	
	Dec 2024	270	4.4	446.50	552	-19	80.59	114.2	17.2	95	63.6	
	Jan 2025	313	5.1	446.50	552	0	79.71	92.9	20.9	77	66.8	
	Feb 2025	411	7.4	446.50	552	0	78.54	95.4	28.4	79	69.0	
	Mar 2025	608	9.9	446.70	555	4	77.53	120.0	41.7	100	68.6	
	Apr 2025	726	12.2	448.70	593	38	77.71	120.0	50.5	100	69.5	
	May 2025	733	11.9	448.70	593	0	78.82	120.0	51.5	100	70.2	
	Jun 2025	714	12.0	448.70	593	0	78.79	120.0	50.1	100	70.2	
	Jul 2025	686	11.2	448.00	580	-13	78.77	120.0	47.9	100	69.8	
	Aug 2025	621	10.1	447.50	571	-10	78.59	120.0	43.1	100	69.4	



#### September 2023 24-Month Study

Most Probable Inflow\*

# **Upper Basin Power**

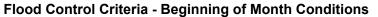


		Glen	Flaming	Blue	Morrow	Crystal	Fontenelle
D-4		Canyon	Gorge	Mesa	Point	Reservoir 1000 MWHR	Reservoir
Dat				1000 MWHR	1000 MWHR		1000 MWHR
	2022	201	42	14	27	13	5
Summer	r 2022	1332	222	108	160	92	28
H Oct	2022	175	42	0	21	10	2
I Nov	2022	181	38	0	6	2	1
S Dec	2022	199	40	1	6	2	4
T Jan	2023	182	41	4	5	2	4
O Feb	2023	172	37	5	6	0	1
R Mar	2023	173	23	4	6	0	3
Winter		1083	220	15	49	16	15
	2023	291	17	5	9	3	4
	2023	412	18	21	40	20	7
	2023	439	43	32	50	22	8
	1 2023			38		22	8
		483	29		45		
- Aug	2023	374	44	31	37	21	6
	2023	215	37	8	34	17	5
Summer	r 2023	2215	187	135	215	106	38
Oct	2023	190	34	21	25	9	5
	2023	198	33	10	12	7	5
	2023	237	42	14	18	10	5
	2024	284	41	12	16	9	5
	2024	250	39	12	16	8	4
	2024	263	25	13	17	9	4
Winter		1423	213	82	104	51	27
	2024	234	24	18	26	14	2
	2024	238	62	60	88	23	6
	2024	258	78	15	25	18	7
	2024	296	27	27	33	18	8
	2024	315	36	29	35	18	7
	2024	235	35	28	34	17	5
Summer	r 2024	1576	262	177	241	108	35
Oct	2024	265	24	20	25	10	0
	2024	265	21	11	14	7	0
	2024	292	33	16	19	10	1
	2025	349	33	15	18	10	4
	2025	304	30	13	17	9	4
	2025	321	21	12	15	8	3
Winter		1796	161	86	108	53	12
Apr	2025	285	20	16	24	13	2
•	2025	289	66	59	92	23	6
	2025	312	32	19	28	18	8
	2025	357	25	26	31	16	8
	2025	377	36	27	32	16	6
Aug	2023	311	30	21	ა∠	10	Ö



#### September 2023 24-Month Study

Most Probable Inflow\*





	Flaming Gorge	Blue Mesa	Navajo	Lake Powell	Upper Basin Total	Lake Mead	Total	Flaming Gorge	Blue Mesa	Navajo	Tot or Max Allow	Lake Powell	Lake Mead	I Total	BOM Space Required	Mead Sched Rel	Mead FC Rel	Sys Cont
Date	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	MAF
	* *	* * P R E D	ICTED S	PACE*	* * *						* * * * C F	EDITAE	LE SPA	CE***				
Sep 2023	411	131	452	14436	15430	18786	34216	411	131	452	994	14436	18786	34216	2270	509	0	25.4
Oct 2023	478	178	472	14467	15594	18773	34367	478	178	472	1128	14467	18773	34367	3040	509	0	25.3
Nov 2023	526	207	468	14381	15581	18845	34427	526	207	468	1201	14381	18845	34427	3810	602	0	25.2
Dec 2023	570	207	467	14358	15602	18980	34582	570	207	467	1243	14358	18980	34582	4580	363	0	25.2
Jan 2024	654	226	470	14468	15817	18781	34598	654	226	470	1350	14468	18781	34598	5350	549	0	25.1
											****E	FFECTI	VE SPAC	E***				
Jan 2024	654	226	470	14468	15817	18781	34598	256	160	442	859	14468	18781	34107	5350	549	0	25.1
Feb 2024	733	241	473	14704	16151	18580	34730	334	177	445	956	14704	18580	34239	1500	533	0	25.0
Mar 2024	800	259	469	14836	16365	18443	34807	400	195	441	1035	14836	18443	34314	1500	877	0	24.8
Apr 2024	779	265	425	14992	16460	18578	35039	374	202	389	964	14992	18578	34534	1500	1002	0	24.8
May 2024	731	257	369	14813	16170	18945	35115	320	193	310	823	14813	18945	34580	1500	982	0	25.9
Jun 2024	707	285	255	13496	14744	19328	34071	288	206	156	651	13496	19328	33474	1500	892	0	27.2
Jul 2024	554	107	176	12252	13090	19628	32718	121	7	21	149	12252	19628	32029	1500	786	0	27.2
											* * * * C F	EDITAE	LE SPA	CE****				
Aug 2024	451	94	215	12231	12991	19724	32715	451	94	215	761	12231	19724	32715	1500	749	0	26.8
Sep 2024	501	127	255	12511	13393	19714	33108	501	127	255	883	12511	19714	33108	2270	647	0	26.4
Oct 2024	570	174	316	12576	13636	19796	33432	570	174	316	1060	12576	19796	33432	3040	459	0	26.2
Nov 2024	595	204	309	12742	13850	19618	33468	595	204	309	1108	12742	19618	33468	3810	585	0	26.1
Dec 2024	611	210	307	12924	14052	19557	33609	611	210	307	1128	12924	19557	33609	4580	517	0	26.0
Jan 2025	675	235	308	13194	14412	19344	33756	675	235	308	1218	13194	19344	33756	5350	566	0	25.9
											****E	FFECTI	VE SPAC	E****				
Jan 2025	675	235	308	13194	14412	19344	33756	399	139	68	605	13194	19344	33143	5350	566	0	25.9
Feb 2025	732	260	309	13599	14899	19033	33932	454	163	68	685	13599	19033	33317	1500	537	0	25.8
Mar 2025	779	280	302	13889	15249	18787	34036	499	184	60	743	13889	18787	33418	1500	881	0	25.6
Apr 2025	760	282	254	14146	15441	18807	34248	475	186	5	666	14146	18807	33619	1500	1006	0	25.6
May 2025	714	261	188	14123	15285	19071	34356	424	162	-84	501	14123	19071	33695	1500	986	0	26.5
Jun 2025	679	302	264	12863	14109	19352	33461	381	190	-47	525	12863	19352	32740	1500	896	0	27.8
Jul 2025	404	138	389	11681	12612	19545	32157	86	3	22	111	11681	19545	31337	1500	791	0	27.6
											* * * * C F	EDITAE	LE SPA	CE****				
Aug 2025	336	128	426	11880	12770	19518	32288	336	128	426	890	11880	19518	32288	1500	753	0	27.2

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

Model Run ID: 3234

Processed On: 9/11/2023 9:40:30AM