## June 24-Month Study Date: June 15, 2022

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

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

#### **Current Reservoir Status**

	May Inflow (unregulated) (acre-feet)	Percent of Average (percent)	June 14, Midnight Elevation (feet)	June 14, Midnight Reservoir Storage (acre-feet)
Fontenelle	62,500	36	6,489.57	215,500
Flaming Gorge	88,400	36	6,015.01	2,744,400
Blue Mesa	176,800	88	7,461.09	373,900
Navajo	166,900	69	6,028.44	944,500
Powell	1,381,500	67	3,536.51	6,659,000

#### **Expected Operations**

The operation of Lake Powell and Lake Mead in this June 2022 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 2022 Annual Operating Plan (AOP). Pursuant to the Interim Guidelines, the August 2021 24-Month Study projections of the January 1, 2022, system storage and reservoir water surface elevations set the operational tier for the coordinated operation of Lake Powell and Lake Mead during 2022.

The August 2021 24-Month study projected the January 1, 2022, 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 2022 is the Mid-Elevation Release Tier.

The August 2021 24-Month Study projected the January 1, 2022 Lake Mead elevation to be at or below 1,075 feet and at or 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 calendar year (CY) 2022. In addition, Section III.B of Exhibit 1 to the Lower Basin Drought Contingency Plan (DCP) Agreement will also govern the operation of Lake Mead for CY 2022. 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 2022.

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 maf in water year 2022.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> For more information: <a href="https://www.usbr.gov/uc/DocLibrary/Plans/20220503-2022DROA-GlenCanyonDamOperationsDecisionLetter-508-DOI.pdf">https://www.usbr.gov/uc/DocLibrary/Plans/20220503-2022DROA-GlenCanyonDamOperationsDecisionLetter-508-DOI.pdf</a>.

This action was undertaken in conjunction with 2022 Drought Response Operations Plan<sup>2</sup> 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 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 0.48 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 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 will similarly model Lakes Powell and Mead as if the 0.48 maf had been delivered to Lake Mead for operating tier/condition purposes both for the U.S. Lower Basin and for Mexico.

Using the approach described in the immediately preceding paragraph, the June 2022 24-Month Study projects the January 1, 2023, Lake Powell elevation to be less than 3,525 feet. Consistent with Section 6.D.1 of the Interim Guidelines, the operational tier for Lake Powell in water year 2023 is projected be the Lower Elevation Balancing Tier and the water year release volume from Lake Powell is projected to be 7.05 maf. Additionally, the June 2022 24-Month Study projects the January 1, 2023 Lake Mead elevation 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 is projected to govern the operation of Lake Mead for calendar year 2023. In addition, Section III.B of Exhibit 1 to the Lower Basin DCP Agreement is also projected to govern the operation of Lake Mead for calendar year 2023. Should the August 2022 24-Month Study determine that Glen Canyon Dam will operate in a balancing condition in water year 2023, Glen Canyon Dam operations will be implemented in a manner that preserves the benefits to Glen Canyon Dam facilities and operations in 2023.

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 May was 1.382 maf or 67 percent of the 30-year average from 1991 to 2020. The June unregulated inflow forecast for Lake Powell is 1.200 maf or 49 percent of the 30-year average. The 2022 April through July unregulated inflow forecast is 3.500 maf or 55 percent of average.

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<sup>&</sup>lt;sup>2</sup> For more information: <a href="https://www.usbr.gov/uc/DocLibrary/Plans/20220429-2022DroughtResponseOperationsPlan-ApprovalMemo-508-DOI.pdf">https://www.usbr.gov/uc/DocLibrary/Plans/20220429-2022DroughtResponseOperationsPlan-ApprovalMemo-508-DOI.pdf</a>.

The 2022 AOP is available online at:

https://www.usbr.gov/lc/region/g4000/aop/AOP22.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 Drought Response Operations Agreement 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 06 ucb.pdf

#### Fontenelle Reservoir

As of June 10, 2022, the Fontenelle Reservoir pool elevation is 6484.07 feet, which amounts to 56 percent of live storage capacity. Inflows for the month of May totaled approximately 63,000 acre-feet (af) or 36 percent of average. Fontenelle's release is currently maintained at 1,200 cfs.

The June final forecast for unregulated inflows into Fontenelle for the next three months projects below average conditions. June, July, and August inflow volumes amount to 220,000 af (74 percent of average), 102,000 af (57 percent of average), and 45,000 af (59 percent of average), respectively. The April-July 2022 unregulated inflow is forecasted to be 435,000 af or 59 percent of average.

The next Fontenelle Working Group meeting is scheduled for August 23, 2022 at 10:00 am at Rock Springs, Wyoming (tentative). 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 <a href="https://www.usbr.gov/uc/water/crsp/wg/ft/ftcurrnt.html">https://www.usbr.gov/uc/water/crsp/wg/ft/ftcurrnt.html</a>. 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 June 10, 2022, Flaming Gorge Reservoir pool elevation is 6014.93 feet, which amounts to 75 percent of live storage capacity. Unregulated inflow volume for the month of May is approximately 88,000 af, which is 36 percent of the average May unregulated inflow volume. The current average daily release is 1,000 cfs.

Pursuant to the 2022 Plan, which was just 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 over the next 12 months (May 2022 through April 2023) to Lake Powell. This volume will be 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 (mid-late June, possibly earlier), as well as the summer-winter base flow period, increasing base flow average daily releases to about 1,700 cfs.

The smallmouth bass (SMB) flow spike will begin shortly after Green and Yampa River temperatures reach and begin to exceed 16 degrees C (about 60 deg F). Occurrence of 16 degree C water usually happens earlier in dry years and later in wet years. In 2021, a dry year, these conditions occurred in early June which was followed by a flow spike beginning on June 21. The SMB flow spike is anticipated to start on June 21, 2022.

The June forecast for unregulated inflows into Flaming Gorge for the next three months projects below average conditions. June, July, and August forecasted unregulated inflow volumes amount to 250,000 af (64 percent of average), 116,000 af (58 percent of average), and 50,000 af (70 percent of average), respectively.

The June water supply forecast of the April through July unregulated inflow volume into Flaming Gorge Reservoir is 520,000 af (54 percent of average), a moderately dry hydrologic classification.

Reclamation is planning to hold the next Flaming Gorge Working Group meeting on August 25, 2022 at 10:00 am MDT (tentative) in Vernal, Utah (tentative). 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 June 9, 2022, releases from Crystal Dam are approximately 1,350 cfs. Gunnison Tunnel diversions are occurring and currently about 1,030 cfs. Flows of the Gunnison River in the Black Canyon are being maintained at about 320 cfs while flows in the Whitewater Reach of the Gunnison River are about 2,200 cfs.

The unregulated inflow volume in January to Blue Mesa was 176,837 af (87 percent of average). Unregulated Inflow volumes forecasted for Blue Mesa for the next three months (June, July and August) are projected to be: 136,000 af (54 percent of average), 55,000 af (51 percent of average) and 38,000 af (63 percent of average), respectively. The June 24-Month Study will be reflective of these new forecasted inflows.

The forecasted 2022 water year unregulated inflow volume to Blue Mesa is projected to be 637,200 af (70 percent of average based on period from 1991-2020). The water supply period (April-July) for 2022 is forecasted to be 429,600 af of unregulated inflow (68 percent of average).

Blue Mesa elevation is now increasing and as of June 9, 2022, was 7,459.01 feet above sea level corresponding to a live storage of 361,100 af which is 43.1 percent of capacity. Blue Mesa elevation will likely continue to increase till mid-July and is projected to peak out at about 7,464 feet. By the end of water year 2022 (September 30, 2022) Blue Mesa elevation is projected to be 7,447 feet with about 295,000 af of storage which will be 35 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 in August 2022. The meeting will be held in person. 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 June 9 the daily average release rate from Navajo Dam was 300 cfs while reservoir inflow was averaging 535 cfs. The water surface elevation was 6028.84 feet above sea level. At this elevation the live storage is 0.945 maf (58 percent of live storage capacity) and the active storage is 0.322 maf (31 percent of active storage capacity). The Navajo Indian Irrigation Project (NIIP) is diverting 660 cfs (totaling 74.6 kaf so far in CY2022). The San Juan-Chama project is diverting 121 cfs (totaling 52 kaf so far in CY2022) from the basin above Navajo Reservoir.

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). The release is increasing Monday, June 13th, to 500 cfs and will increase further throughout the month as the Animas

River falls. Releases will likely increase to 1200 cfs (or higher as needed) to maintain minimum baseflows this summer.

Preliminary modified unregulated inflow (MUI) into Navajo in May was 168 kaf, which was 69 percent of average for the month. The volume released downstream totaled 18.6 kaf, which was 18 percent of average for the month.

The most probable MUI forecast for June, July, and August is 20 kaf (11 percent of average), 0 kaf (0 percent of average), and 14 kaf (42 percent of average), respectively.

The April-July runoff forecasts are as follows:

Min Probable Forecast: 295,000 af (47 percent of average, a decrease of 15,000 af since the May forecast). So far, observed inflow accounts for 102 percent of this forecast. This forecast has already been exceeded. Most Probable Forecast: 310,000 af (49 percent of average, a decrease of 70,000 af since the May forecast). So far, observed inflow accounts for 97 percent of this forecast.

Max Probable Forecast: 340,000 af (54 percent of average, a decrease of 140,000 af since the May forecast). So far, observed inflow accounts for 89 percent of this forecast.

Beginning October 1 of 2021 (the start of WY 2022), the area-capacity table for Navajo Reservoir was updated based on a 2019 Survey.

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, August 23 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. The meeting will also have a virtual option.

#### Glen Canyon Dam / Lake Powell

#### **Current Status**

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 million acre-feet (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 thousand acre-feet (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 7.0 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: <a href="https://www.usbr.gov/dcp/droa.html">https://www.usbr.gov/dcp/droa.html</a>

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

The Department of the Interior is conducting the fifth experimental flow at Glen Canyon Dam since implementing its Long-Term Experimental and Management Plan (LTEMP). The goal is to provide enhanced habitat for the lifecycle of aquatic insects that are the primary food source for fish in the Colorado River.

Experiments under LTEMP consist of four different flow regimes: high flows, macroinvertebrate flows (bug flows), trout management flows, and low summer flows. Collaborative discussions among technical experts resulted in a decision to begin this fourth consecutive year of the bug flow experiment on May 1 and continue through August 31, 2022. It will slightly modify the schedule and flow rates of water releases from Lake Powell through Glen Canyon Dam, Arizona. The normally scheduled monthly and weekly release volumes will not be affected.

Flows during the experiment will include steady weekend water releases with routine hydropower production flows on weekdays that include normal hourly changes in release rates. Those steady weekend flows are expected to provide favorable conditions for aquatic insects to lay and cement their eggs to rocks, vegetation, and other materials near the river's edge. Steady weekend flows will be relatively low, within two inches of typical weekday low water levels. It is unlikely casual recreational river users will notice the changes in water levels. Hourly releases in May 2022 will fluctuate from a low of approximately 8,600 cfs during the early morning hours to a high of 13,990 cfs during the afternoon and evening hours. On weekend days in May 2022, releases will be steady near 9,350 cfs. The Glen Canyon Dam Implementation Team will closely monitor the condition of resources during the experiment and may terminate implementation at any time if unanticipated negative impacts are observed or are likely to occur due to ongoing drought and low lake levels.

Insects expected to benefit from this experiment are an important food source for many species of fish, birds, and bats in the canyon. Beyond expected resource benefits, this experiment will also provide scientific information that will be used in future decision making. Although every effort will be made to match the design of the experiment described above, Reclamation will continue to exercise the operational flexibility described in the LTEMP ROD. Additional information can be found on the Glen Canyon Dam Adaptive Management website here: <a href="https://www.usbr.gov/uc/progact/amp/ltemp.html">https://www.usbr.gov/uc/progact/amp/ltemp.html</a>

	Release Volume	Bug Flows Min	Bug Flows Peak	<b>Bug Flows Steady</b>
Month	(kaf)	Release (cfs)	Release (cfs)	Release (cfs)
May	599	6,350	13,990	9,350
June	598	8,600	14,582	9,350
July	673	8,600	15,332	9,350
August	717	8,600	15,772	9,350

The unregulated inflow volume to Lake Powell during May was 1,381,500 thousand acre-feet (kaf) (67 percent of average). The release volume from Glen Canyon Dam in May was 598 kaf. The end of May elevation and storage of Lake Powell were 3,531.69 feet (168 feet from full pool) and 6.34 million acre-feet (maf) (26 percent of live capacity), respectively.

#### **Current Operations**

The operating tier for water year 2022 (October 2021 through September 2022) was established in August 2021 as the Mid-Elevation Release Tier consistent with Section 6.C.1 of the Interim Guidelines. The August 2021 24-Month study projected the January 1, 2022, 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.

As previously mentioned, 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 7.0 maf in water year 2022.

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 1,100 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 40 MW (approximately 800 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 2022 unregulated inflow to Lake Powell, issued on June 3, 2022, by the Colorado Basin River Forecast Center, projects that the most probable (median) unregulated inflow volume this year will be 5.61 maf (58 percent of average).

In addition to the June 2022 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 June to determine a possible range of reservoir elevations under probable most, maximum and minimum inflow scenarios. 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: <a href="https://www.usbr.gov/dcp/droa.html">https://www.usbr.gov/dcp/droa.html</a>.

The June forecast for water year 2022 ranges from a minimum probable of 5.04 maf (52 percent of average) to a maximum probable of 6.61 maf (69 percent of average) with the most probable forecast for water year 2022 of 5.61 maf (58 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 of 5.61 maf unregulated inflow for water year 2022, the June 24-Month Study projects Lake Powell elevation will end water year 2022 near 3525.79 feet with approximately 5.98 maf in storage (25 percent of capacity). Note that projections of elevation and storage for water year 2022 have significant uncertainty at this point in the season. Projections of end of water year 2022 elevation using the minimum and maximum inflow forecast results from the June 2022 model run are 3,521.64 feet and 3,534.05 feet, respectively. The annual release volume from Lake Powell during water year 2022 will be 7.0 maf as determined under Section 6.C.1 and 7.D of the Interim Guidelines as determined by the Department of the Interior.

#### **Upper Colorado River Basin Hydrology**

Upper Colorado River Basin regularly experiences significant year to year hydrologic variability. During the 22-year period 2000 to 2021, however, the unregulated inflow to Lake Powell, which is a good measure of hydrologic conditions in the Colorado River Basin, was above average in only 5 out of the past 22 years. The period 2000-2021 is the lowest 22-year period since the closure of Glen Canyon Dam in 1963, with an average unregulated inflow of 8.46 maf, or 88 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 2000-2021 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 2022 unregulated inflow to Lake Powell is projected to be 5.61 maf (58 percent of average).

At the beginning of water year 2022, total system storage in the Colorado River Basin was 22.80 maf (38 percent of 59.64 maf total system capacity). This is a decrease of 5.97 maf over the total storage at the beginning of water year 2021 when total system storage was 28.77 maf (48 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 38 percent of capacity at the beginning of water year 2022. Based on current inflow forecasts, the current projected end of water year 2022 total Colorado Basin reservoir storage is approximately 19.56 maf (33 percent of total system capacity). The actual end of water year 2022 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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The August 2021 24-Month study projected the January 1, 2022, 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 2022 is the Mid-Elevation Release Tier.

The August 2021 24-Month Study projected the January 1, 2022 Lake Mead elevation to be at or below 1,075 feet and at or 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 calendar year (CY) 2022. In addition, Section III.B of Exhibit 1 to the Lower Basin Drought Contingency Plan (DCP) Agreement will also govern the operation of Lake Mead for CY 2022. 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 2022.

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 maf in water year 2022<sup>1</sup>. This action was undertaken in conjunction with the 2022 Drought Response Operations Plan<sup>2</sup> 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 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 0.48 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 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 will similarly model Lakes Powell and Mead as if the 0.48 maf had been delivered to Lake Mead for operating tier/condition purposes both for the U.S. Lower Basin and for Mexico.

Using the approach described in the immediately preceding paragraph, the June 2022 24-Month Study projects the January 1, 2023, Lake Powell elevation to be less than 3,525 feet. Consistent with Section 6.D.1 of the Interim Guidelines, the operational tier for Lake Powell in water year 2023 is projected be the Lower Elevation Balancing Tier and the water year release volume from Lake Powell is projected to be 7.05 maf. Additionally, the June 2022 24-Month Study projects

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

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the January 1, 2023 Lake Mead elevation 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 is projected to govern the operation of Lake Mead for calendar year 2023. In addition, Section III.B of Exhibit 1 to the Lower Basin DCP Agreement is also projected to govern the operation of Lake Mead for calendar year 2023. Should the August 2022 24-Month Study determine that Glen Canyon Dam will operate in a balancing condition in water year 2023, Glen Canyon Dam operations will be implemented in a manner that preserves the benefits to Glen Canyon Dam facilities and operations in 2023.

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 May was 1.382 maf or 67 percent of the 30-year average from 1991 to 2020. The June unregulated inflow forecast for Lake Powell is 1.200 maf or 49 percent of the 30-year average. The 2022 April through July unregulated inflow forecast is 3.500 maf or 55 percent of average.

In this study, the calendar year 2022 diversion for Metropolitan Water District of Southern California (MWD) is projected to be 1.119 maf. The calendar year 2022 diversion for the Central Arizona Project (CAP) is projected to be 0.971 maf. Consumptive use for Nevada above Hoover (SNWP Use) is projected to be 0.253 maf for calendar year 2022.

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 PO&M 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 Colleen Dwyer at (702) 293-8420.

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

Pocon <i>y</i> oir		Observed	Inflow (kaf	)	Apr	Inflow	/ Forecast (	kaf)	Seasonal	Outlook
Reservoir	Feb	Mar	Apr	May	%Avg	Jun	Jul	Aug	Apr-Jul	%Avg
Lake Powell	215	329	594	1381	67%	1200	325	170	3500	55%
Fontenelle	23	46	50	63	36%	220	102	45	435	59%
Flaming Gorge	30	74	66	88	36%	250	116	50	520	54%
Blue Mesa	18.2	30	62	177	88%	136	55	38	430	68%
Morrow Point	19	31	65	186	83%	139	55	40	445	64%
Crystal	22	36	73	203	81%	143	56	45	475	62%
Taylor Park	3.3	4.1	7.8	27	103%	33	12.2	8	80	85%
Vallecito	3.2	7.1	27	53	81%	15	8	7	103	58%
Navajo	13.9	41	123	167	69%	20	0	14	310	49%
Lemon	0.47	1.07	5.4	16.2	85%	3.6	1.8	1.7	27	56%
McPhee	2.3	9.8	41	72	66%	14	8	8	135	53%
Ridgway	2.8	4.5	7	19.7	85%	18	8.3	6	53	58%
Deerlodge	18.2	53	123	422	85%	300	35	11	880	74%
Durango	7.3	12	35	112	84%	41	17	13	205	53%

The 2022 AOP is available online at:

https://www.usbr.gov/lc/region/g4000/aop/AOP22.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 Drought Response Operations Agreement 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 06 ucb.pdf.



### June 2022 24-Month Study

Most Probable Inflow\*





	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)	
*	Jun 2021	143	2	42	0	42	6494.76	251	
Н	Jul 2021	45	2	43	0	43	6494.70	250	
1	Aug 2021	35	2	41	0	41	6493.52	242	
S	Sep 2021	26	2	36	0	36	6491.82	230	
	WY 2021	561	14	471	94	566			
Т	Oct 2021	37	1	33	4	37	6491.62	229	
0	Nov 2021	39	1	43	0	43	6491.01	225	
R	Dec 2021	29	1	50	0	50	6487.63	203	
- 1	Jan 2022	29	1	51	0	51	6483.90	180	
С	Feb 2022	23	1	46	0	46	6479.63	157	
Α	Mar 2022	46	1	50	0	50	6478.63	151	
L	Apr 2022	50	1	5	44	49	6478.74	152	
*	May 2022		1	47	8	55	6479.96	158	
	Jun 2022	220	2	71	0	71	6501.86	312	
	Jul 2022	102	3	74	0	74	6505.12	338	
	Aug 2022		2	65	0	65	6502.27	315	
	Sep 2022		2	60	0	60	6498.80	289	
	WY 2022		15	595	56	651	<u> </u>		
	Oct 2022	36	1	61	0	61	6495.13	262	
	Nov 2022	34	1	60	0	60	6491.36	236	
	Dec 2022	28	1	61	0	61	6486.16	202	
	Jan 2023	26	1	61	0	61	6479.99	166	
	Feb 2023	24	0	56	0	56	6473.55	134	
	Mar 2023	42	0	63	0	63	6468.70	113	
	Apr 2023	65	1	34	38	72	6466.77	105	
	May 2023		1	90	0	90	6475.70	144	
	Jun 2023		2	101	18	119	6499.98	298	
	Jul 2023		3	100	10	110	6506.63	350	
	Aug 2023		2	71	0	71	6504.92	336	
	Sep 2023		2	65	0	65	6501.42	309	
-	WY 2023		15	824	66	890			_
	Oct 2023	46	1	68	0	68	6498.32	286	
	Nov 2023		1	68	0	68	6494.65	259	
	Dec 2023		1	71	0	71	6488.83	219	
	Jan 2024		1	71	0	71	6482.20	178	
	Feb 2024		1	66	0	66	6474.69	139	
	Mar 2024		0	69	0	69	6470.47	120	
	Apr 2024		1	71	0	71	6471.62	125	
	May 2024		1	90	0	90	6486.06	202	



### June 2022 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)	
*	Jun 2021	148	46	10	80	0	80	125	6023.52	3106	205	
Н	Jul 2021	48	43	12	65	0	65	124	6022.61	3073	80	
1	Aug 2021	44	50	12	98	0	98	121	6021.02	3016	111	
S	Sep 2021	27	37	10	96	0	96	119	6019.15	2950	107	
	WY 2021	650	657	77	835	0	835				1430	
Т	Oct 2021	49	50	7	77	0	77	117	6018.23	2918	107	
0	Nov 2021	47	49	3	51	0	51	117	6018.09	2913	87	
R	Dec 2021	21	41	2	52	0	52	117	6017.72	2900	82	
1	Jan 2022	33	55	2	52	0	52	117	6017.75	2901	80	
С	Feb 2022	30	53	2	47	0	47	117	6017.87	2905	70	
Α	Mar 2022	74	83	3	52	0	52	118	6018.65	2932	111	
L	Apr 2022	66	62	5	51	0	51	118	6018.81	2938	179	
*	May 2022	88	88	7	139	48	187	114	6015.77	2769	550	
	Jun 2022	250	101	9	127	0	127	113	6014.76	2736	427	
	Jul 2022	116	88	11	85	0	85	113	6014.52	2729	120	
	Aug 2022	50	70	10	111	0	111	111	6013.00	2679	122	
	Sep 2022	37	62	9	107	0	107	109	6011.35	2627	117	
	WY 2022	861	802	70	951	48	999				2051	
	Oct 2022	44	69	6	96	0	96	107	6010.36	2595	120	
	Nov 2022	44	70	3	92	0	92	106	6009.58	2571	119	
	Dec 2022	29	62	1	89	0	89	105	6008.71	2544	112	
	Jan 2023	32	67	1	92	0	92	104	6007.90	2519	114	
	Feb 2023	35	67	2	81	0	81	104	6007.41	2504	103	
	Mar 2023	85	106	2	86	0	86	104	6007.95	2520	143	
	Apr 2023	105	112	4	51	0	51	106	6009.72	2575	256	
	May 2023	180	140	6	84	0	84	108	6011.23	2623	609	
	Jun 2023	340	184	9	51	0	51	113	6014.97	2743	451	
	Jul 2023	200	145	11	56	0	56	116	6017.23	2817	121	
	Aug 2023	70	81	11	71	0	71	116	6017.22	2817	86	
	Sep 2023	46	71	9	75	0	75	116	6016.85	2805	90	
	WY 2023	1210	1175	66	924	0	924				2324	
	Oct 2023	55	77	6	64	0	64	116	6017.04	2811	93	
	Nov 2023	50	76	3	61	0	61	116	6017.39	2823	92	
	Dec 2023	33	72	1	71	0	71	116	6017.38	2823	95	
	Jan 2024	40	81	1	71	0	71	117	6017.63	2831	95	
	Feb 2024	41	80	2	66	0	66	117	6017.97	2842	91	
	Mar 2024	87	105	3	52	0	52	119	6019.41	2890	126	
	Apr 2024	113	107	4	51	0	51	121	6020.89	2941	253	
	May 2024	244	167	7	221	0	221	119	6019.16	2882	733	



### June 2022 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)
*	Jun 2021	24	16	9314.87	78
Н	Jul 2021	11	16	9311.57	72
1	Aug 2021	7	15	9306.36	64
S	Sep 2021	4	10	9302.48	59
	WY 2021	92	102		
Т	Oct 2021	5	5	9302.69	59
0	Nov 2021	4	4	9302.58	59
R	Dec 2021	5	5	9302.55	59
- 1	Jan 2022	4	4	9302.29	58
С	Feb 2022	3	4	9301.88	58
Α	Mar 2022	4	4	9301.56	57
L	Apr 2022	8	6	9302.92	59
*	May 2022	27	12	9312.55	74
	Jun 2022	33	19	9320.84	88
	Jul 2022	12	17	9318.24	84
	Aug 2022	8	15	9313.98	76
	Sep 2022	6	12	9310.35	70
	WY 2022	119	107		
	Oct 2022	6	6	9310.55	71
	Nov 2022	5	5	9310.52	71
	Dec 2022	5	5	9310.05	70
	Jan 2023	4	5	9309.29	69
	Feb 2023	4	5	9308.46	67
	Mar 2023	4	5	9307.68	66
	Apr 2023	7	6	9308.33	67
	May 2023	26	15	9315.08	78
	Jun 2023	40	18	9327.03	100
	Jul 2023	15	21	9323.93	94
	Aug 2023	9	18	9318.80	85
	Sep 2023	7	18	9312.09	73
	WY 2023	130	127		
	Oct 2023	6	9	9310.44	71
	Nov 2023	5	5	9310.22	70
	Dec 2023	4	5	9309.72	69
	Jan 2024	5	5	9309.37	69
	Feb 2024	4	5	9308.83	68
	Mar 2024	5	5	9308.45	67
	Apr 2024	9	9	9308.50	68
	May 2024	26	15	9315.31	79

# STATE OF THE STATE

### June 2022 24-Month Study

Most Probable Inflow\*





		UnReg	Regulated	Evap	Power	Bypass	Total	Reservoir Elev	Live	
	<b>D</b>	Inflow	Inflow	Losses	Release	Release	Release	End of Month	Storage	
*		(1000 Ac-Ft)	(1000 Ac-Ft)	, ,	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	(1000 Ac-Ft)	
	Jun 2021	127	119	1	77	0	77	7463.84	391	
H	Jul 2021	53	58	1	98	0	98	7457.21	350	
1	Aug 2021	45	53	1	93	0	93	7450.20	310	
S	Sep 2021	19	25	1	94	0	94	7436.58	241	
	WY 2021	518	528	6	713	2	715			
Т	Oct 2021	27	26	0	58	0	58	7429.52	209	
0	Nov 2021	27	27	0	16	0	16	7431.94	220	
R	Dec 2021	22	22	0	11	0	11	7434.40	231	
-1	Jan 2022	20	20	0	14	0	14	7435.60	236	
С	Feb 2022	18	19	0	14	0	14	7436.57	241	
Α	Mar 2022	30	30	0	32	0	32	7436.17	239	
L	Apr 2022	62	60	0	44	0	46	7438.94	252	
*	May 2022	177	162	1	79	0	79	7454.56	335	
	Jun 2022	136	122	1	73	0	73	7462.52	383	
	Jul 2022	55	60	1	82	0	82	7458.68	359	
	Aug 2022	38	45	1	76	0	76	7453.28	328	
	Sep 2022	27	33	1	75	0	75	7445.34	284	
	WY 2022	637	626	6	575	0	577			
	Oct 2022	29	29	0	74	0	74	7436.02	238	
	Nov 2022	25	25	0	13	0	13	7438.51	250	
	Dec 2022	21	22	0	14	0	14	7440.15	258	
	Jan 2023	20	21	0	15	0	15	7441.44	265	
	Feb 2023	18	19	0	13	0	13	7442.71	271	
	Mar 2023	28	29	0	17	0	17	7445.14	283	
	Apr 2023	58	57	1	30	0	30	7450.15	310	
	May 2023	185	174	1	70	0	70	7467.26	413	
	Jun 2023	245	223	1	95	0	95	7485.06	540	
	Jul 2023	92	98	•	95 76	0	95 76	7485.00	560	
	Aug 2023			1						
	Sep 2023	51	61	1	82	0	82	7484.72	537	
	WY 2023	33	45	1		0	78	7480.17	503	
	W1 2023	805	802	7	577	0	577			
	Oct 2023	34	37	0	73	0	73	7475.17	467	
	Nov 2023	30	31	0	14	0	14	7477.50	484	
	Dec 2023	26	27	0	14	0	14	7479.31	497	
	Jan 2024	25	26	0	14	0	14	7480.87	508	
	Feb 2024	23	24	0	13	0	13	7482.35	519	
	Mar 2024	38	38	0	16	0	16	7485.27	541	
	Apr 2024	78	78	1	29	0	29	7491.60	590	
	May 2024	203	192	1	68	0	68	7506.50	713	
	-			•						

# STATE OF THE STATE

## June 2022 24-Month Study

Most Probable Inflow\*





		Unreg	Blue Mesa	Side	Total	Power	Bypass	Total	Reservoir Elev	Live	
	Date	Inflow (1000 Ac-Ft)	Release (1000 Ac-Ft)	Inflow (1000 Ac-Ft)	Inflow (1000 Ac-Ft)	Release (1000 Ac-Ft)	Release (1000 Ac-Ft)	Release (1000 Ac-Ft)	End of Month (Ft)	Storage (1000 Ac-Ft)	
*	Jun 2021	132	77	4	81	85	0	85	7150.02	109	
Н	Jul 2021	54	98	1	99	97	0	97	7152.51	111	
	Aug 2021	46	93	1	93	94	0	94	7150.92	110	
s	Sep 2021	19	94	0	94	93	0	93	7152.50	111	
	WY 2021	539	715	21	736	734	0	734	02.00		
_									7440.07	400	
T	Oct 2021	27	58	1	59	61	0	61	7149.67	109	
0	Nov 2021	30	16	3	19	17	0	17	7151.77	110	
R	Dec 2021	23	11	1	12	16	0	16	7145.62	106	
I	Jan 2022	21	14	1	15	16	0	16	7144.25	105	
C	Feb 2022	19	14	1	15	14	0	14	7145.30	105	
Α.	Mar 2022	31	32	2	33	30	0	30	7149.87	109	
L	Apr 2022	65	46	3	50	47	0	47	7153.31	112	
*	May 2022	186	79	9	88	89	0	89	7152.08	111	
	Jun 2022	139	73	3	76	74	0	74	7153.72	112	
	Jul 2022	55	82	0	82	82	0	82	7153.73	112	
	Aug 2022	40	76	2	78	78	0	78	7153.73	112	
	Sep 2022	29	75	2	77	77	0	77	7153.73	112	
	WY 2022	665	577	27	604	602	0	602			
	Oct 2022	31	74	2	76	76	0	76	7153.73	112	
	Nov 2022	27	13	2	15	15	0	15	7153.73	112	
	Dec 2022	23	14	2	16	16	0	16	7153.73	112	
	Jan 2023	22	15	2	17	17	0	17	7153.73	112	
	Feb 2023	20	13	2	15	15	0	15	7153.73	112	
	Mar 2023	31	17	3	20	19	0	19	7153.73	112	
	Apr 2023	67	30	9	39	39	0	39	7153.73	112	
	May 2023	205	70	20	90	90	0	90	7153.73	112	
	Jun 2023	265	95	20	115	115	0	115	7153.72	112	
	Jul 2023	96	76	4	80	80	0	80	7153.73	112	
	Aug 2023	54	82	3	85	85	0	85	7153.73	112	
	Sep 2023	34	78	1	79	78	0	78	7153.73	112	
	WY 2023	875	577	70	647	646	0	646			
	Oct 2023	36	73	2	74	74	0	74	7153.73	112	
	Nov 2023	31	14	1	15	15	0	15	7153.73	112	
	Dec 2023	27	14	1	15	15	0	15	7153.73	112	
	Jan 2024	26	14	1	15	15	0	15	7153.73	112	
	Feb 2024	25	13	1	14	14	0	14	7153.73	112	
	Mar 2024	40	16	2	18	18	0	18	7153.73	112	
	Apr 2024	89	29	11	39	39	0	39	7153.73	112	
	May 2024	226	68	23	91	91	0	91	7153.73	112	



### June 2022 24-Month Study

Most Probable Inflow\*

## Crystal Reservoir



	OH S.						•					•
	Date	Unreg Inflow (1000 Ac-Ft)	Morrow 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)	Tunnel Flow (1000 Ac-Ft)	Below Tunnel Flow (1000 Ac-Ft)
*	Jun 2021	140	85	9	94	94	0	94	6751.32	16	62	33
Н	Jul 2021	60	97	6	103	103	0	103	6750.41	16	65	41
-1	Aug 2021	52	94	6	100	100	0	100	6751.69	17	65	38
S	Sep 2021	23	93	3	96	95	0	96	6752.92	17	61	36
	WY 2021	591	734	52	785	762	22	784			423	365
Т	Oct 2021	32	61	5	66	34	32	66	6752.35	17	41	24
0	Nov 2021	34	17	4	21	22	0	22	6749.65	16	1	19
R	Dec 2021	27	16	4	21	20	0	21	6750.09	16	1	19
1	Jan 2022	25	16	4	21	20	0	21	6750.38	16	1	18
С	Feb 2022	22	14	3	17	18	0	18	6746.37	15	0	17
Α	Mar 2022		30	4	34	32	1	32	6752.56	17	6	25
L	Apr 2022		47	8	54	54	1	54	6752.33	17	31	24
*	May 2022		89	17	105	92	13	106	6751.40	16	59	48
	Jun 2022	143	74	4	78	78	0	78	6753.03	17	61	17
	Jul 2022	56	82	1	83	83	0	83	6753.04	17	65	18
	Aug 2022	45	78	5	83	83	0	83	6753.04	17	65	18
	Sep 2022	32	77	3	80	80	0	80	6753.04	17	55	25
	WY 2022	727	602	62	665	616	48	664			385	273
	Oct 2022		76	4	80	80	0	80	6753.04	17	55	25
	Nov 2022	31	15	4	19	19	0	19	6753.04	17	0	19
	Dec 2022		16	4	20	20	0	20	6753.04	17	0	20
	Jan 2023	25	17	3	20	20	0	20	6753.04	17	0	20
	Feb 2023	23	15	3	18	18	0	18	6753.04	17	0	18
	Mar 2023	36	19	5	24	24	0	24	6753.04	17	5	19
	Apr 2023		39	10	49	49	0	49	6753.04	17	42	7
	May 2023	235	90	30	120	120	0	120	6753.04	17	62	58
	Jun 2023		115	35	150	130	20	150	6753.03	17	61	89
	Jul 2023	105	80	9	89	89	0	89	6753.04	17	65	24
	Aug 2023	58	85	4	89	89	0	89	6753.04	17	65	24
	Sep 2023	38	78	4	82	82	0	82	6753.04	17	55	27
	WY 2023	990	646	115	761	740	20	760			410	350
	Oct 2023		74	5	79	52	27	79	6753.04	17	55	24
	Nov 2023		15	4	19	19	0	19	6753.04	17	0	19
	Dec 2023	32	15	5	20	20	0	20	6753.04	17	0	20
	Jan 2024	31	15	4	20	20	0	20	6753.04	17	0	20
	Feb 2024	29	14	4	18	18	0	18	6753.04	17	0	18
	Mar 2024	46	18	7	24	24	0	24	6753.04	17	5	19
	Apr 2024	100	39	11	50	50	0	50	6753.04	17	42	8
	May 2024	251	91	25	116	116	0	116	6753.04	17	62	54



### June 2022 24-Month Study

Most Probable Inflow\*

## Vallecito Reservoir



		Regulated Inflow	Total Release	Reservoir Elev End of Month	Live Storage
		(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	(1000 Ac-Ft)
*	Jun 2021	44	39	7647.63	81
H	Jul 2021	19	36	7639.49	63
ı	Aug 2021	13	34	7628.72	43
<u>s</u>	Sep 2021	7	26	7615.74	24
	WY 2021	166	169		
Т	Oct 2021	8	3	7619.62	29
0	Nov 2021	5	2	7621.90	32
R	Dec 2021	4	0	7624.23	35
1	Jan 2022	4	0	7626.39	39
С	Feb 2022	3	0	7628.13	42
Α	Mar 2022	7	0	7631.90	48
L *	Apr 2022	27	2	7644.01	73
*	May 2022	53	33	7652.10	92
	Jun 2022	15	33	7644.24	74
	Jul 2022	8	31	7632.97	50
	Aug 2022	7	28	7619.54	29
	Sep 2022	7	22	7605.07	13
	WY 2022	147	155		
	Oct 2022	8	13	7598.51	8
	Nov 2022	6	2	7604.23	12
	Dec 2022	5	2	7607.86	16
	Jan 2023	4	2	7610.07	18
	Feb 2023	4	2	7612.27	20
	Mar 2023	6	2	7615.85	24
	Apr 2023	16	2	7625.94	38
	May 2023	63	31	7642.42	70
	Jun 2023	66	43	7652.18	92
	Jul 2023	19	42	7642.28	69
	Aug 2023	12	38	7629.00	43
	Sep 2023	11	30	7616.12	24
	WY 2023	220	206		
	Oct 2023	10	17	7609.76	17
	Nov 2023	8	2	7615.41	24
	Dec 2023	7	2	7619.30	28
	Jan 2024	6	2	7622.21	32
	Feb 2024	5	2	7624.64	36
	Mar 2024	10	2	7629.31	44
	Apr 2024	23	2	7640.34	65
	May 2024	68	31	7655.82	102



## June 2022 24-Month Study

Most Probable Inflow\*

## Navajo Reservoir



		Mod Unreg	Azotea	Reg	Evap	NIIP	Total	Reservoir Elev		Farmington	
	Date	Inflow (1000 Ac-Ft)	Tunnel Div (1000 Ac-Ft)	Inflow (1000 Ac-Et)	Losses (1000 Ac-Ft)	Diversion (1000 Ac-Ft)	Release (1000 Ac-Ft)	End of Month (Ft)	Storage (1000 Ac-Ft)	Flow (1000 Ac-Ft)	
*	Jun 2021	<u> </u>	18	78	4	44	21	6040.14	1114	89	
Н	Jul 2021		2	40	4	45	35	6035.96	1070	57	
1	Aug 2021		1	24	3	39	41	6030.18	1010	48	
s	Sep 2021		0	16	2	25	48	6024.10	951	49	
	WY 2021		60	405	23	222	359			549	
Т	Oct 2021	20	0	16	1	2	28	6022.31	887	45	
0	Nov 2021		0	10	1	0	18	6021.39	879	36	
R	Dec 2021		0	11	0	0	18	6020.63	872	35	
1	Jan 2022	2 14	0	10	0	0	22	6019.21	859	38	
С	Feb 2022	2 14	0	11	1	1	20	6018.00	848	33	
Α	Mar 2022	2 41	2	32	1	4	22	6018.57	853	38	
L	Apr 2022	2 123	17	84	2	17	20	6023.53	898	44	
*	May 2022	2 167	30	114	3	38	18	6029.39	954	104	
	Jun 2022	2 20	0	38	3	51	42	6023.17	895	83	
	Jul 2022		0	23	3	56	51	6013.32	808	68	
	Aug 2022	2 14	0	35	2	47	45	6006.21	750	58	
	Sep 2022	2 15	0	30	2	26	33	6002.44	720	48	
	WY 2022	2 457	49	415	19	242	338			630	
	Oct 2022	2 29	0	33	1	9	23	6002.44	720	39	
	Nov 2022	2 25	0	21	1	0	17	6002.82	723	31	
	Dec 2022	2 21	0	18	0	0	17	6002.84	723	28	
	Jan 2023	3 19	0	17	0	0	20	6002.41	719	30	
	Feb 2023	3 22	0	20	0	0	15	6002.96	724	24	
	Mar 2023		3	48	1	5	15	6006.23	750	30	
	Apr 2023	3 120	13	93	2	21	15	6012.97	805	55	
	May 2023		29	164	2	35	15	6025.49	916	140	
	Jun 2023		23	139	3	51	15	6032.69	986	155	
	Jul 2023		1	51	3	56	20	6029.87	958	70	
	Aug 2023		1	49	3	47	29	6026.76	928	57	
	Sep 2023		0	43	2	26	25	6025.70	918	47	
	WY 2023	3 780	71	695	19	250	227			707	
	Oct 2023		1	37	1	9	19	6026.48	926	39	
	Nov 2023		0	22	1	0	15	6027.17	932	32	
	Dec 2023		0	19	0	0	15	6027.47	935	30	
	Jan 2024		0	17	0	0	18	6027.32	934	32	
	Feb 2024		0	25	1	0	17	6028.05	941	29	
	Mar 2024		9	76 400	1	6	18	6033.22	991	41	
	Apr 2024		17	108	2	21	18	6039.78	1058	69	
	May 2024	252	33	182	3	36	18	6051.03	1183	153	



### June 2022 24-Month Study

Most Probable Inflow\*

### **Lake Powell**



Unreg Regulated Evap PowerPlant Bypass Total Reservoir Elev Bank			
Inflow Inflow Losses Release Release Release End of Month Storage  Date (1000 Ac-Ft) (1000 Ac-Ft) (1000 Ac-Ft) (1000 Ac-Ft) (1000 Ac-Ft) (1000 Ac-Ft)	EOM Storage (1000 Ac-Ft)	Lees Ferry Gage (1000 Ac-Ft)	
* Jun 2021 809 640 31 651 0 651 3560.06 4720	8328	663	
H Jul 2021 193 305 36 767 0 767 3553.88 4683	7866	763	
I Aug 2021 292 452 35 801 0 801 3548.96 4655	7511	785	
S Sep 2021 159 380 31 622 0 622 3545.36 4634	7258	625	
WY 2021 3502 4064 277 8229 0 8229		8279	
T Oct 2021 317 419 21 481 0 481 3544.25 4628	7181	489	
O Nov 2021 346 342 20 500 0 500 3541.84 4615	7016	496	
R Dec 2021 266 290 16 600 0 600 3537.33 4591	6713	599	
I Jan 2022 249 269 4 673 0 673 3531.52 4561	6335	681	
C Feb 2022 215 235 4 540 0 540 3526.97 4538	6048	556	
A Mar 2022 329 327 7 574 0 574 3523.13 4519	5812	584	
L Apr 2022 594 490 12 502 0 502 3522.77 4517	5791	513	
* May 2022 1382 1212 14 598 0 598 3531.69 4561	6346	607	
Jun 2022 1200 1085 25 598 0 598 3538.25 4596	6774	619	
Jul 2022 325 427 30 673 0 673 3534.36 4575	6518	694	
Aug 2022 170 346 29 717 0 717 3528.56 4545	6147	735	
Sep 2022 220 382 26 542 0 542 3525.79 4532	5975	557	
WY 2022 5610 5824 210 7000 0 7000		7130	
Oct 2022 365 466 18 480 0 480 3525.31 4529	5946	493	
Nov 2022 375 404 18 500 0 500 3523.59 4521	5840	501	
Dec 2022 310 359 14 600 0 600 3519.66 4502	5604	602	
Jan 2023 275 331 4 664 0 664 3514.32 4477	5292	671	
Feb 2023 275 308 4 587 0 587 3509.70 4456	5031	596	
Mar 2023 435 393 6 620 0 620 3505.79 4439	4815	633	
Apr 2023 700 546 10 552 0 552 3505.52 4438	4801	569	
May 2023 1860 1503 12 550 0 550 3520.80 4507	5672	572	
Jun 2023 2300 1765 23 577 0 577 3537.89 4594	6750	598	
Jul 2023 820 707 31 652 0 652 3538.24 4596	6773	672	
Aug 2023 315 400 30 696 0 696 3533.64 4571	6471	714	
Sep 2023         320         420         27         570         0         570         3531.08         4558	6307	584	
WY 2023 8350 7603 197 7048 0 7048		7205	_
Oct 2023 424 470 19 643 0 643 3528.27 4544	6130	656	
Nov 2023 449 430 18 642 0 642 3524.84 4527	5917	643	
Dec 2023 352 369 14 715 0 715 3519.31 4500	5584	717	
Jan 2024 347 364 4 790 0 790 3512.45 4469	5185	797	
Feb 2024 396 399 4 700 0 700 3507.40 4446	4903	709	
Mar 2024 613 497 6 740 0 740 3503.15 4427	4672	753	
Apr 2024 935 732 10 660 0 660 3504.22 4432	4730	677	
May 2024 2114 1791 12 660 0 660 3522.36 4515	5766	682	



### June 2022 24-Month Study

Most Probable Inflow\*

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



		Glen	Side Inflow	Evap	Total	Total	SNWP	Downstream	Bank	Reservoir Elev	EOM	
	Date	Release (1000 Ac-Ft)	Glen to Hoover (1000 Ac-Ft)	Losses (1000 Ac-Ft)	Release (1000 Ac-Ft)	Release (1000 CFS)	Use (1000 Ac-Ft)	Requirements (1000 Ac-Ft)	Storage (1000 Ac-Ft)	End of Month (Ft)	Storage (1000 Ac-Ft)	
*	Jun 2021	651	-31	51	939	15.8	32	927	592	1068.77	9102	
Н	Jul 2021	767	95	63	862	14.0	31	853	586	1067.65	9014	
1	Aug 2021	801	89	67	766	12.5	31	766	587	1067.96	9038	
S	Sep 2021	622	50	55	616	10.4	24	614	586	1067.68	9016	
	WY 2021	8229	557	529	9361		241	9360				
Т	Oct 2021	481	80	51	581	9.4	16	586	581	1066.77	8945	
0	Nov 2021	500	42	44	642	10.8	10	650	572	1064.97	8804	
R	Dec 2021	600	64	36	503	8.2	10	511	579	1066.39	8915	
1	Jan 2022		60	25	640	10.4	11	639	583	1067.09	8970	
С	Feb 2022	540	58	23	590	10.6	10	590	581	1066.78	8946	
Α	Mar 2022	574	42	25	1010	16.4	17	1009	555	1061.49	8536	
L	Apr 2022	502	30	33	1027	17.3	17	1026	522	1054.69	8026	
*	May 2022	598	9	40	1083	17.6	26	1075	489	1047.69	7517	
	Jun 2022	598	22	47	904	15.2	31	904	467	1042.88	7177	
	Jul 2022		56	45	837	13.6	37	837	455	1040.33	7000	
	Aug 2022		66	48	765	12.4	37	765	451	1039.41	6937	
	Sep 2022		62	46	688	11.6	29	688	441	1037.23	6789	
	WY 2022	7000	592	461	9269		250	9279				_
	Oct 2022	480	69	44	465	7.6	21	465	442	1037.49	6806	
	Nov 2022	500	68	38	571	9.6	11	571	439	1036.78	6758	
	Dec 2022	600	69	31	466	7.6	6	466	449	1039.06	6913	
	Jan 2023	664	87	22	604	9.8	11	604	456	1040.63	7021	
	Feb 2023	587	88	20	549	9.9	8	549	462	1041.97	7114	
	Mar 2023	620	107	22	883	14.4	15	883	451	1039.34	6932	
	Apr 2023		72	29	994	16.7	17	994	425	1033.56	6541	
	May 2023	550	43	36	976	15.9	21	976	398	1027.28	6128	
	Jun 2023		22	43	915	15.4	30	915	375	1021.58	5764	
	Jul 2023		56	40	828	13.5	34	828	363	1018.66	5581	
	Aug 2023		66	43	798	13.0	36	798	356	1016.91	5473	
	Sep 2023		62	42	692	11.6	32	692	348	1014.86	5347	
	WY 2023	7048	810	410	8740		243	8740				
	Oct 2023		69	39	527	8.6	26	527	355	1016.70	5460	
	Nov 2023		68	35	649	10.9	15	649	356	1016.88	5471	
	Dec 2023		69	28	543	8.8	10	543	368	1019.94	5661	
	Jan 2024		87	20	577	9.4	11	577	384	1023.94	5914	
	Feb 2024		88	19	522	9.1	8	522	399	1027.45	6139	
	Mar 2024		107	21	857	13.9	16	857	396	1026.77	6095	
	Apr 2024		72	28	968	16.3	18	968	379	1022.63	5830	
	May 2024	660	43	34	952	15.5	22	952	360	1018.06	5544	



## June 2022 24-Month Study

Most Probable Inflow\*

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



		Hoover	Side	Evap	Power	Spill	Total	Total	Reservoir Elev	EOM	
	Date	Release (1000 Ac-Ft)	Inflow (1000 Ac-Ft)	Losses (1000 Ac-Ft)	Release (1000 Ac-Ft)	Release (1000 Ac-Ft)	Release (1000 Ac-Ft)	Release (1000 CFS)	End of Month (Ft)	Storage (1000 Ac-Ft)	
*	Jun 2021	939	15	25	901	0	901	15.1	643.33	1708	
Н	Jul 2021	862	-6	25	831	0	831	13.5	643.31	1707	
- 1	Aug 2021	766	-6	23	731	0	731	11.9	643.54	1713	
s	Sep 2021	616	9	18	756	0	756	12.7	638.04	1565	
	WY 2021	9361	-82	198	9040	0	9040				
Т	Oct 2021	581	-3	14	638	0	658	10.7	634.42	1471	
0	Nov 2021	642	-9	13	543	0	543	9.1	637.48	1551	
R	Dec 2021	503	-6	13	465	0	465	7.6	638.32	1573	
1	Jan 2022		-20	9	523	0	523	8.5	641.60	1661	
C	Feb 2022		-26	8	555	0	555	10.0	641.69	1663	
A	Mar 2022		-38	10	931	0	931	15.1	642.79	1693	
L	Apr 2022		-31	13	975	0	975	16.4	643.08	1701	
*	May 2022		-20	14	1041	0	1041	16.9	643.35	1708	
	Jun 2022		-18		881	0	881		643.00	1699	
	Jul 2022		-18 -19	14 12	819	0	819	14.8 13.3	642.50	1685	
	Aug 2022		-19 -17	16	746	0	746	12.1	642.00	1671	
	Sep 2022		-17 -8	16	740	0	740 718	12.1	640.01	1617	
	WY 2022		-215	151	8836	0	8856	12.1	040.01	1017	
	Oct 2022		-11	14	623	0	623	10.1	633.00	1434	
	Nov 2022		-16	13	491	0	491	8.2	635.00	1486	
	Dec 2022		-5	13	330	0	330	5.4	639.51	1604	
	Jan 2023		-12	9	522	0	522	8.5	641.80	1666	
	Feb 2023		-11	8	530	0	530	9.5	641.80	1666	
	Mar 2023		-9	10	830	0	830	13.5	643.05	1700	
	Apr 2023		-13	13	970	0	970	16.3	643.00	1699	
	May 2023		-13	14	948	0	948	15.4	643.00	1699	
	Jun 2023		-18	14	882	0	882	14.8	643.00	1699	
	Jul 2023	828	-19	12	823	0	823	13.4	642.00	1671	
	Aug 2023		-17 o	15 16	766 733	0 0	766 733	12.5	642.00	1671	
	Sep 2023 WY 2023	692 <b>8740</b>	-8 - <b>151</b>	16 <b>151</b>	722 <b>8438</b>	0	722 <b>8438</b>	12.1	640.01	1617	
									005.55	440:	
	Oct 2023	527	-11	14	685	0	685	11.1	633.00	1434	
	Nov 2023		-16	13	569	0	569	9.6	635.00	1486	
	Dec 2023		-5 40	13	407	0	407	6.6	639.51	1604	
	Jan 2024	577	-12	9	495	0	495	8.0	641.80	1666	
	Feb 2024	522	-11	8	503	0	503	8.8	641.80	1666	
	Mar 2024	857	-9 43	10	804	0	804	13.1	643.05	1700	
	Apr 2024	968	-13	13	945	0	945	15.9	643.00	1699	
	May 2024	952	-13	14	925	0	925	15.0	643.00	1699	



### June 2022 24-Month Study

Most Probable Inflow\*

### Parker Dam - Lake Havasu



		Davis Release	Side Inflow	Evap Losses	Total Release	Total Release	MWD Diversion	CAP Diversion	Reservoir Elev End of Month	EOM Storage	Flow To Mexico	Flow To Mexico	
	Date	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 CFS)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 CFS)	
*	Jun 2021	901	20	15	706	11.9	103	87	448.55	591	151	2.5	
Н	Jul 2021	831	15	17	669	10.9	106	51	448.23	585	147	2.4	
1	Aug 2021	731	16	17	586	9.5	100	48	447.51	571	121	2.0	
S	Sep 2021	756	5	15	516	8.7	97	106	448.49	590	116	1.9	_
	WY 2021	9040	116	140	6393		1065	1441			1519		
Т	Oct 2021	658	18	12	421	6.8	99	139	448.37	587	67	1.1	
0	Nov 2021	543	13	9	348	5.8	96	124	447.05	562	92	1.5	
R	Dec 2021	465	16	7	281	4.6	99	87	447.33	567	89	1.5	
1	Jan 2022	523	-3	6	342	5.6	96	89	446.38	550	114	1.9	
С	Feb 2022	555	12	8	445	8.0	4	103	446.44	551	127	2.3	
Α	Mar 2022	931	2	9	658	10.7	97	133	448.02	580	170	2.8	
L	Apr 2022	975	6	11	737	12.4	100	141	447.11	563	161	2.7	
*	May 2022	1041	9	13	741	12.0	106	150	448.68	593	138	2.2	
	Jun 2022	881	7	16	702	11.8	103	58	448.50	589	143	2.4	
	Jul 2022	819	14	17	687	11.2	106	20	448.00	580	139	2.3	
	Aug 2022	746	13	17	615	10.0	106	20	447.50	571	118	1.9	
	Sep 2022		12	15	515	8.7	103	86	447.50	570	104	1.7	
	WY 2022	8856	119	139	6493		1117	1149			1463		_
	Oct 2022	623	18	12	439	7.1	99	85	447.50	571	63	1.0	
	Nov 2022	491	17	9	342	5.8	98	53	447.50	570	91	1.5	
	Dec 2022	330	18	7	222	3.6	101	33	446.50	552	87	1.4	
	Jan 2023	522	14	6	310	5.0	99	116	446.50	552	136	2.2	
	Feb 2023	530	5	8	401	7.2	18	102	446.50	552	122	2.2	
	Mar 2023	830	4	9	609	9.9	99	105	446.70	555	145	2.4	
	Apr 2023	970	8	11	715	12.0	96	109	448.70	593	144	2.4	
	May 2023	948	6	13	722	11.7	99	109	448.70	593	108	1.8	
	Jun 2023	882	7	16	719	12.1	95	46	448.70	593	114	1.9	
	Jul 2023	823	14	17	684	11.1	99	38	448.00	580	120	2.0	
	Aug 2023	766	13	17	624	10.2	99	37	447.50	571	100	1.6	
	Sep 2023	722	12	15	524	8.8	96	88	447.50	570	97	1.6	
	WY 2023	8438	135	139	6312		1096	919			1327		
	Oct 2023		18	12	482	7.8	99	103	447.50	571	87	1.4	
	Nov 2023		17	9	372	6.2	95	104	447.50	570	113	1.9	
	Dec 2023		18	7	260	4.2	99	74	446.50	552	108	1.8	
	Jan 2024	495	14	6	302	4.9	87	108	446.50	552	129	2.1	
	Feb 2024		5	8	394	6.9	4	96	446.50	552	116	2.0	
	Mar 2024	804	4	9	601	9.8	87	98	446.70	555	138	2.2	
	Apr 2024		8	11	707	11.9	84	102	448.70	593	137	2.3	
	May 2024	925	6	13	717	11.7	87	102	448.70	593	103	1.7	



### June 2022 24-Month Study

Most Probable Inflow\*

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



		Power Release	Power Release	Reservoir Elev End of Month	EOM Storage	Change In Storage	Hoover Static Head	Hoover Gen	Hoover Gross Energy	Percent of Units	
	Date	(1000 Ac-Ft)	(1000 CFS)	(Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	Capacity MW	MKWH	Available	KWH/AF
*	Jun 2021	939	15.8	1068.77	9102	-378	419.04	1451.0	366.8	100	390.7
Н	Jul 2021	862	14.0	1067.65	9014	-88	421.16	1417.0	323.4	100	375.3
1	Aug 2021	766	12.5	1067.96	9038	24	421.53	1322.1	286.1	93	373.4
S	Sep 2021	616	10.4	1067.68	9016	-22	425.37	1228.0	232.0	87	376.5
	WY 2021	9361							3643.8		
Т	Oct 2021	581	9.4	1066.77	8945	-71	422.27	1228.0	216.2	87	372.4
0	Nov 2021	642	10.8	1064.97	8804	-140	421.30	938.0	241.3	67	375.8
R	Dec 2021	503	8.2	1066.39	8915	111	424.48	957.0	185.9	68	369.9
ì	Jan 2022	640	10.4	1067.09	8970	55	420.00	993.0	236.8	67	370.2
c C	Feb 2022	590	10.6	1066.78	8946	-24	420.26	994.0	220.4	67	373.2
Α	Mar 2022	1010	16.4	1061.49	8536	-409	413.69	898.0	375.9	62	372.3
L	Apr 2022	1027	17.3	1054.69	8026	-511	405.75	863.0	380.5	61	370.4
*	May 2022	1083	17.6	1047.69	7517	-509	397.38	1082.0	391.7	80	361.7
	•										
	Jun 2022	904	15.2	1042.88	7177	-340	394.04	1076.9	321.6	81	355.6
	Jul 2022	837	13.6	1040.33	7000	-177	389.34	1236.6	294.1	94	351.5
	Aug 2022	765	12.4	1039.41	6937	-63	387.95	1224.8	265.6	94	347.1
	Sep 2022	688	11.6	1037.23	6789	-149	387.23	1213.0	236.4	94	343.8
	WY 2022	9269							3366.4		
	Oct 2022	465	7.6	1037.49	6806	18	390.42	988.2	163.0	75	350.2
	Nov 2022	571	9.6	1036.78	6758	-48	392.24	1008.2	199.3	78	349.2
	Dec 2022	466	7.6	1039.06	6913	155	390.90	1018.0	163.4	78	350.6
	Jan 2023	604	9.8	1040.63	7021	108	391.19	960.0	211.3	72	349.8
	Feb 2023	549	9.9	1041.97	7114	93	391.78	983.4	192.2	73	350.4
	Mar 2023	883	14.4	1039.34	6932	-181	390.19	1043.3	314.4	78	356.1
	Apr 2023	994	16.7	1033.56	6541	-391	386.28	940.4	346.5	72	348.6
	May 2023	976	15.9	1027.28	6128	-413	380.03	948.8	334.8	75	343.1
	Jun 2023	915	15.4	1021.58	5764	-364	372.83	1085.1	303.0	87	331.3
	Jul 2023	828	13.5	1018.66	5581	-182	367.59	1233.0	270.2	100	326.4
	Aug 2023	798	13.0	1016.91	5473	-109	365.61	1220.2	258.0	100	323.2
	Sep 2023	692	11.6	1014.86	5347	-126	364.38	1207.4	220.7	100	319.0
	WY 2023	8740							2977.0		
	Oct 2023	527	8.6	1016.70	5460	113	369.64	844.9	170.6	69	323.8
	Nov 2023	649	10.9	1016.88	5471	11	372.46	738.1	213.4	74	328.6
	Dec 2023	543	8.8	1019.94	5661	190	370.69	885.1	176.1	86	324.3
	Jan 2024	577	9.4	1023.94	5914	253	373.46	758.6	190.7	72	330.3
	Feb 2024	522	9.1	1027.45	6139	225	376.87	734.0	173.8	67	333.2
	Mar 2024	857	13.9	1026.77	6095	-44	377.08	813.1	292.3	75	341.0
	Apr 2024	968	16.3	1022.63	5830	-265	373.71	848.1	320.0	81	330.5
	May 2024	952	15.5	1018.06	5544	-286	370.08	749.3	314.8	74	330.7



## June 2022 24-Month Study

Most Probable Inflow\*

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



		Power	Power	Reservoir Elev	EOM	Change In	Davis	Davis Gen	Davis	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	
*	Jun 2021		15.1	643.33	1708	28	141.86	255.0	114.4	100	127.0	
Н	Jul 2021	831	13.5	643.31	1707	-1	139.09	253.3	106.2	99	127.8	
- 1	Aug 2021	731	11.9	643.54	1713	6	144.21	255.0	93.7	100	128.2	
S	Sep 2021	756	12.7	638.04	1565	-148	136.46	255.0	95.1	100	125.8	
	WY 2021	9040							1141.6			
Т	Oct 2021	638	10.7	634.42	1471	-95	134.72	215.5	80.2	85	125.6	
0	Nov 2021	543	9.1	637.48	1551	-95 80	136.32	164.9	65.8	65	121.0	
R	Dec 2021	465	7.6	638.32	1573	22	137.10	192.5	56.1	75	120.6	
1	Jan 2022		8.5	641.60	1661	88	139.02	159.6	64.6	63	123.6	
C	Feb 2022		10.0	641.69	1663	2	140.45	174.9	72.1	69	130.0	
Α	Mar 2022		15.1	642.79	1693	30	140.26	253.3	118.7	99	127.4	
L	Apr 2022		16.4	643.08	1701	8	137.93	255.0	124.0	100	127.1	
*	May 2022		16.9	643.35	1708	7	140.42	241.8	132.1	95	126.9	
	•											
	Jun 2022		14.8	643.00	1699	-10	139.49	251.6	110.8	99	125.7	
	Jul 2022		13.3	642.50	1685	-14	139.61	255.0	103.0	100	125.8	
	Aug 2022		12.1	642.00	1671	-14	139.54	255.0	93.8	100	125.7	
	Sep 2022		12.1	640.01	1617	-54	138.33	255.0	89.4	100	124.6	
	WY 2022	8836							1110.4			
	Oct 2022	623	10.1	633.00	1434	-183	134.60	227.0	75.6	89	121.3	
	Nov 2022	491	8.2	635.00	1486	51	132.89	159.8	58.8	63	119.7	
	Dec 2022	330	5.4	639.51	1604	118	137.47	154.7	40.9	61	123.9	
	Jan 2023	522	8.5	641.80	1666	62	139.44	156.3	65.5	61	125.6	
	Feb 2023	530	9.5	641.80	1666	0	140.13	156.6	66.9	61	126.3	
	Mar 2023	830	13.5	643.05	1700	34	139.22	194.1	104.1	76	125.4	
	Apr 2023	970	16.3	643.00	1699	-2	138.84	249.9	121.4	98	125.1	
	May 2023	948	15.4	643.00	1699	0	139.10	255.0	118.8	100	125.3	
	Jun 2023		14.8	643.00	1699	0	139.31	255.0	110.7	100	125.5	
	Jul 2023	823	13.4	642.00	1671	-27	139.32	255.0	103.3	100	125.5	
	Aug 2023	766	12.5	642.00	1671	0	139.18	255.0	96.0	100	125.4	
	Sep 2023	722	12.1	640.01	1617	-54	138.30	255.0	90.0	100	124.6	
	WY 2023	8438							1052.0			
	Oct 2023	685	11.1	633.00	1434	-183	134.19	227.0	82.8	89	120.9	
	Nov 2023		9.6	635.00	1486	51	132.32	159.8	67.9	63	119.2	
	Dec 2023		6.6	639.51	1604	118	136.88	154.7	50.2	61	123.3	
	Jan 2024		8.0	641.80	1666	62	139.63	156.3	62.3	61	125.8	
	Feb 2024		8.8	641.80	1666	0	140.47	156.6	63.7	61	126.6	
	Mar 2024		13.1	643.05	1700	34	139.36	194.1	101.0	76	125.6	
	Apr 2024		15.9	643.00	1699	-2	138.98	249.9	118.3	98	125.2	
	May 2024	925	15.0	643.00	1699	0	139.24	255.0	116.0	100	125.4	



### June 2022 24-Month Study

Most Probable Inflow\*

### Parker Dam - Lake Havasu



		Power Release	Power Release	Reservoir Elev End of Month	EOM Storage	Change In Storage	Parker Static Head	Parker Gen Capacity	Parker Gross Energy	Percent of Units		
	Date	(1000 Ac-Ft)	(1000 CFS)	(Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	MW	MKWH	Available	KWH/AF	
*	Jun 2021	706	11.9	448.55	591	1	82.07	120.0	49.4	100	69.9	
Н	Jul 2021	669	10.9	448.23	585	-6	80.10	120.0	46.6	100	69.6	
- 1	Aug 2021	586	9.5	447.51	571	-14	79.33	120.0	40.7	100	69.4	
S	Sep 2021	516	8.7	448.49	590	19	80.37	120.0	35.7	100	69.2	
	WY 2021	6393							442.4			
Т	Oct 2021	421	6.8	448.37	587	-2	82.15	96.8	29.7	81	70.6	
0	Nov 2021		5.8	447.05	562	-25	81.18	90.0	24.0	75	69.1	
R	Dec 2021		4.6	447.33	567	5	81.34	102.6	18.6	85	66.1	
1	Jan 2022		5.6	446.38	550	-18	80.46	93.9	23.0	78	67.4	
C	Feb 2022		8.0	446.44	551	1	80.54	86.8	30.9	72	69.4	
Α	Mar 2022		10.7	448.02	580	30	77.95	112.3	45.8	94	69.6	
L	Apr 2022		12.4	447.11	563	-17	79.08	120.0	50.8	100	68.9	
*	May 2022		12.0	448.68	593	30	84.09	120.0	51.5	100	69.5	
	,											
	Jun 2022		11.8	448.50	589 580	-4 40	78.76	120.0	49.3	100	70.2	
	Jul 2022		11.2	448.00	580	-10	78.66	120.0	47.9	100	69.7	
	Aug 2022		10.0	447.50	571	-9	78.63	120.0	42.7	100	69.5	
	Sep 2022		8.7	447.50	570	0	78.96	120.0	35.8	100	69.4	
	WY 2022	6492							450.1			
	Oct 2022	2 439	7.1	447.50	571	0	79.66	93.9	30.9	78	70.4	
	Nov 2022	342	5.8	447.50	570	0	80.36	90.0	23.6	75	68.9	
	Dec 2022	222	3.6	446.50	552	-19	81.02	111.3	14.2	93	64.0	
	Jan 2023	310	5.0	446.50	552	0	79.73	93.9	20.7	78	66.9	
	Feb 2023	3 401	7.2	446.50	552	0	78.63	95.2	27.7	79	69.1	
	Mar 2023	609	9.9	446.70	555	4	77.52	120.0	41.8	100	68.6	
	Apr 2023	715	12.0	448.70	593	38	77.79	120.0	49.7	100	69.5	
	May 2023	722	11.7	448.70	593	0	78.89	120.0	50.8	100	70.3	
	Jun 2023	719	12.1	448.70	593	0	78.76	120.0	50.4	100	70.2	
	Jul 2023	684	11.1	448.00	580	-13	78.78	120.0	47.8	100	69.8	
	Aug 2023	624	10.2	447.50	571	-10	78.57	120.0	43.3	100	69.4	
	Sep 2023	524	8.8	447.50	570	0	78.89	120.0	36.4	100	69.4	
	WY 2023	6312							437.3			
	Oct 2023	482	7.8	447.50	571	0	79.34	91.0	33.8	76	70.1	
	Nov 2023	372	6.2	447.50	570	0	80.11	92.0	25.5	77	68.6	
	Dec 2023	3 260	4.2	446.50	552	-19	80.67	112.3	16.6	94	63.7	
	Jan 2024	302	4.9	446.50	552	0	79.80	92.9	20.2	77	66.9	
	Feb 2024	394	6.9	446.50	552	0	78.80	95.4	27.3	79	69.2	
	Mar 2024	601	9.8	446.70	555	4	77.58	120.0	41.3	100	68.7	
	Apr 2024	707	11.9	448.70	593	38	77.83	120.0	49.2	100	69.6	
	May 2024	717	11.7	448.70	593	0	78.92	120.0	50.4	100	70.3	



## June 2022 24-Month Study

Most Probable Inflow\*

## **Upper Basin Power**



	OCH 3, 1						
		Glen	Flaming	Blue	Morrow	Crystal	Fontenelle
		Canyon	Gorge	Mesa	Point	Reservoir	Reservoir
			1000 MWHR	1000 MWHR	1000 MWHR	1000 MWHR	1000 MWHR
*	Jun 2021	260	30	20	30	19	3
Н	Jul 2021	303	24	27	34	20	3
1	Aug 2021	310	37	25	34	20	3
S	Sep 2021	238	36	24	33	19	2
Sı	ummer 2021	1614	182	140	190	114	17
Т	Oct 2021	183	29	14	22	7	2
0	Nov 2021	189	19	3	6	2	3
R	Dec 2021	226	19	2	5	2	4
1	Jan 2022		19	3	5	1	4
С	Feb 2022	201	17	3	4	1	3
Α	Mar 2022		19	8	9	4	3
,	Winter 2022	1259	123	34	50	17	19
L	Apr 2022		19	11	15	10	0
*	May 2022		52	20	31	18	3
	Jun 2022		42	20	27	13	5
	Jul 2022		28	22	30	14	6
	Aug 2022		36	20	28	14	5
	Sep 2022		35	20	28	14	5
Sı	ummer 2022	1300	212	112	159	83	24
	Oct 2022	169	32	19	28	14	5
	Nov 2022	176	30	3	5	3	4
	Dec 2022	209	29	3	6	3	4
	Jan 2023		30	4	6	3	4
	Feb 2023		26	3	5	3	3
	Mar 2023		28	4	7	4	3
,	Winter 2023		175	37	57	31	23
	Apr 2023		17	8	14	8	2
	May 2023		27	19	32	21	5
	Jun 2023		17	27	42	22	7
	Jul 2023		19	22	29	15	8
	Aug 2023		24	24	31	15	6
	Sep 2023		2 <del>4</del> 25	22	28	14	5
e.	3ep 2023 2023 ummer		25 <b>128</b>	122	20 <b>176</b>	97	3 <b>2</b>
31							
	Oct 2023		21	21	27	9	5
	Nov 2023		20	4	5	3	5
	Dec 2023		23	4	5	3	5
	Jan 2024		23	4	6	3	5
	Feb 2024		22	4	5	3	4
	Mar 2024		17	5	6	4	4
•	Winter 2024	1212	110	36	48	22	24
	Apr 2024	219	17	8	14	9	4
	May 2024		74	21	33	20	5



## June 2022 24-Month Study

Most Probable Inflow\*



## Flood Control Criteria - Beginning of Month Conditions

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
	* * *	* * P R E D	ICTED S	PACE*	* * *						****E	FFECT	VESPAC	E****				
Jun 2022	1,162	495	748	17976	20380	20103	40483	155	36	-32	158	17976	20103	38237	1500	904	0	20.8
Jul 2022	1,048	447	806	17548	19849	20443	40292	32	-27	-28	-24	17548	20443	37967	1500	837	0	20.2
											* * * * C F	REDITA	BLESPA	C E * * * *				
Aug 2022	1,030	470	893	17804	20198	20620	40818	1030	470	893	2394	17804	20620	40818	1500	765	0	19.6
Sep 2022	1,102	502	952	18175	20730	20683	41413	1102	502	952	2555	18175	20683	41413	2270	688	0	19.1
Oct 2022	1,181	545	982	18347	21054	20831	41886	1181	545	982	2708	18347	20831	41886	3040	465	0	18.8
Nov 2022	1,239	591	982	18376	21188	20814	42002	1239	591	982	2812	18376	20814	42002	3810	571	0	18.6
Dec 2022	1,290	579	979	18482	21329	20862	42191	1290	579	979	2848	18482	20862	42191	4580	466	0	18.6
Jan 2023	1,351	571	978	18718	21618	20707	42325	1351	571	978	2901	18718	20707	42325	5350	604	0	18.4
											****E	FFECT	VESPAC	E****				
Jan 2023	1,351	571	978	18718	21618	20707	42325	476	330	416	1223	18718	20707	40647	5350	604	0	18.4
Feb 2023	1,412	565	982	19030	21988	20599	42587	536	325	419	1281	19030	20599	40909	1500	549	0	18.2
Mar 2023	1,459	559	978	19291	22286	20506	42793	582	320	414	1316	19291	20506	41114	1500	883	0	17.9
Apr 2023	1,464	546	951	19507	22468	20688	43156	583	308	382	1273	19507	20688	41468	1500	994	0	17.6
May 2023	1,416	519	896	19521	22353	21079	43432	529	280	304	1113	19521	21079	41714	1500	976	0	18.4
Jun 2023	1,330	416	785	18650	21181	21492	42673	433	165	155	753	18650	21492	40896	1500	915	0	19.6
Jul 2023	1,056	290	715	17572	19633	21856	41489	144	16	31	190	17572	21856	39619	1500	828	0	19.5
											* * * * C F	REDITA	BLESPA	C E * * * *				
Aug 2023	929	270	743	17549	19491	22039	41530	929	270	743	1942	17549	22039	41530	1500	798	0	19.0
Sep 2023	943	292	773	17851	19859	22147	42007	943	292	773	2009	17851	22147	42007	2270	692	0	18.6
Oct 2023	983	326	783	18015	20107	22273	42380	983	326	783	2092	18015	22273	42380	3040	527	0	18.3
Nov 2023	1,000	362	776	18192	20330	22160	42490	1000	362	776	2138	18192	22160	42490	3810	649	0	18.1
Dec 2023	1,015	346	769	18405	20535	22149	42684	1015	346	769	2130	18405	22149	42684	4580	543	0	18.1
Jan 2024	1,055	333	766	18738	20892	21959	42851	1055	333	766	2154	18738	21959	42851	5350	577	0	18.0
													VESPAC	E****				
Jan 2024	1,055	333	766	18738	20892	21959	42851	499	298	475	1272	18738	21959	41969	5350	577	0	18.0
Feb 2024	1,088	321	768	19137	21313	21706	43020	529	287	476	1292	19137	21706	42135	1500	522	0	17.9
Mar 2024	1,115	310	761	19419	21605	21481	43086	554	277	468	1299	19419	21481	42199	1500	857	0	17.8
Apr 2024	1,086	288	710	19650	21734	21525	43259	519	255	411	1185	19650	21525	42360	1500	968	0	17.8
May 2024	1,031	239	643	19592	21505	21790	43295	457	205	320	983	19592	21790	42364	1500	952	0	18.8

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

Model Run ID: 3192

Processed On: 6/13/2022 4:36:07PM