January 24-Month Study
Date: January 15, 2025

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

Current Reservoir Status

	December Inflow (unregulated) (acre-feet)	Percent of Average (percent)	January 14 Midnight Elevation (feet)	January 14, Midnight Reservoir Storage (acre-feet)
Fontenelle	29,308	92	6480.82	162,907
Flaming Gorge	31,497	95	6025.77	3,110,152
Blue Mesa	27,198	108	7482.93	523,678
Navajo	18,160	88	6038.66	1,046,592
Powell	299,283	93	3570.23	8,535,374

Expected Operations

The operation of Lake Powell and Lake Mead in the January 2025 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), the Supplemental Environmental Impact Statement for Near-term Colorado River Operations Record of Decision (2024 Interim Guidelines SEIS ROD), [1] and reflects the Draft 2025 Annual Operating Plan (AOP). Pursuant to the Interim Guidelines, the August 2024 24-Month Study projections of the January 1, 2025, system storage and reservoir water surface elevations set the operational tier for the coordinated operation of Lake Powell and Lake Mead during 2025.

On May 6, 2024, Reclamation published the 2024 Interim Guidelines SEIS ROD, which included modifications to Sections 2, 6, and 7 of the 2007 Interim Guidelines. Subsequent 24-Month Studies reflect the 2024 Interim Guidelines SEIS ROD in modeled operations.

The August 2024 24-Month Study projected the January 1, 2025, 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 , as amended by the 2024 Interim Guidelines SEIS ROD, the operational tier for Lake Powell in water year (WY) 2025 will be the Mid-Elevation Release Tier and the water year release volume from Lake Powell is projected to be 7.48 million acre-feet (maf).

The August 2024 24-Month Study projected the January 1, 2025 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 calendar year (CY) 2025. In

[1] 2024 Interim Guidelines SEIS ROD is available online at: https://www.usbr.gov/ColoradoRiverBasin/documents/NearTermColoradoRiverOperations/20240507-Near-termColoradoRiverOperations-SEIS-RecordofDecision-signed_508.pdf.

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 2025. Lower Basin projections for Lake Mead take into consideration additional conservation efforts under the LC Conservation Program.

The 2025 operational tier determinations for Lake Powell and Lake Mead will be documented in the 2025 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 December was 0.299 maf or 93% of the 30-year average from 1991 to 2020. The January 2025 unregulated inflow forecast for Lake Powell is 0.310 maf or 92% of the 30-year average. The 2025 April through July unregulated inflow forecast for Lake Powell is 5.15 maf or 81% of average. The WY 2025 unregulated inflow forecast for Lake Powell is 7.83 maf or 82% of average.

The draft 2025 Annual Operating Plan is available online at:
https://www.usbr.gov/uc/water/rsvrs/ops/aop/AOP25_draft.pdf.
The Interim Guidelines are available online at:
https://www.usbr.gov/lc/region/programs/strategies/RecordofDecision.pdf.
The Colorado River Drought Contingency Plans (DCPs) are available online at:
https://www.usbr.gov/ColoradoRiverBasin/dcp/finaldocs.html.
The Upper Basin Hydrology Summary is available online at:
https://www.usbr.gov/uc/water/crsp/studies/24Month_01_ucb.pdf.
Information on the Lower Colorado Basin (LCB) Conservation Program is available online at:
https://www.usbr.gov/lc/LCBConservation.html.
Information on the 2024 Interim Guidelines SEIS is available online at:
https://www.usbr.gov/ColoradoRiverBasin/interimguidelines/seis/index.html

Fontenelle Reservoir

As of January 07, 2025, the Fontenelle Reservoir pool elevation is 6481.92 feet, which amounts to 51 percent of live storage capacity. Inflows for the month of December totaled approximately 29,310 acre-feet (af) or 92 percent of average.

Current release rate is set at 825 cfs. This release shall remain constant throughout the winter base flow period, pending significant hydrological changes or emergencies. The winter base flow period is typically from mid-November and ending approximately mid-March, pending icing conditions in the Green River downstream of the dam this coming spring.

The January final forecast for unregulated inflows into Fontenelle for the next three months projects below average conditions. January, February, and March Most Probable inflow volumes amount to 26,000 af (86 percent of average), 25,000 af (88 percent of average), and 43,000 af (76 percent of average) respectively.

The next Fontenelle Working Group meeting is April 16, 2025 at 10 AM MT and location is pending. 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 January 7, 2025 (end of day), Flaming Gorge Reservoir pool elevation is 6025.93 feet, which amounts to 85 percent of live storage capacity. Unregulated inflow volume for the month of December is approximately 31,500 acre-feet (af), which is 95 percent of the average December unregulated inflow volume.

Winter Baseflow – Average daily releases will be approximately 1,200 cfs until the end of February, pending hydrology.

The January unregulated inflows into Flaming Gorge for the next three months projects below average. January, February, and March forecasted unregulated inflow volumes 35,000 af (87 percent of average), 38,000 af (84 percent of average), and 85,000 af (80 percent of average), respectively.

Reclamation is planning to hold Flaming Gorge Working Group meetings tentatively on March 13, 2025 at 10:00 am and April 15, 2025, at 12:00 pm (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 January 12, 2025, releases from Crystal Dam are approximately 550 cfs. Flows of the Gunnison River in the Black Canyon are being maintained at about 550 cfs while the Gunnison Tunnel is intermittently diverting to fill Fairview Reservoir about 1 day every 2 weeks. Flows in the Whitewater Reach of the Gunnison River are about 1,050 cfs.

The unregulated inflow volume in December to Blue Mesa was approximately 27,000 af (108 percent of average). Unregulated Inflow volumes forecasted for Blue Mesa for the next three months (January, February, and March) are projected to be: 23,000 af (97 percent of average), 22,000 af (98 percent of average), and 38,000 af (101 percent of average), respectively.

The forecasted 2025 water year unregulated inflow volume to Blue Mesa is projected to be approximately 869,000 af (96 percent of average). The water supply period (April-July) for 2025 is forecasted currently for an unregulated inflow volume of to be 600,000 af of unregulated inflow (92 percent of average).

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 23, 2025 at 1:00 p.m. The in-person meeting is to be determined and will be broadcast virtually. 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 January 12th, the release was 350 cfs. Reservoir inflow was averaging 144 cfs. The water surface elevation was 6038.75 feet above sea level. At this elevation the live storage was 1.05 maf (64 percent of live storage capacity) and the active storage is 0.421 maf (41 percent of active storage capacity). Diversions to Cutter Reservoir for the Navajo Indian Irrigation Project (NIIP) and the Navajo Gallup Water Supply Project (NGWSP) are 0 cfs. The San Juan-Chama project was not diverting from the basin above Navajo Reservoir. SNOTEL stations above Navajo Reservoir are showing 68 percent of median with 6.53 inches on this date.

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).

Navajo was at 6039.2 ft of pool elevation and 1.05 maf, or 64 percent of live storage (0.426 maf, or 42 percent of active storage) by the end of December, which was 82 percent of average for the end of the month.

The release averaged 360 cfs and totaled 22.3 kaf, which was 78 percent of average for the month. Preliminary modified unregulated inflow (MUI) into Navajo was 18.2 kaf, which was 88 percent of average for the month. Calculated evaporation for the month was 521 af. NIIP did not divert in December. Navajo had a net storage change of -9.1 kaf in December.

The most probable inflow forecast for January, February, and March is 19 kaf, (95 percent of average), 20 kaf (74 percent of average), and 45 kaf (55 percent of average), respectively.

The April-July runoff forecast is as follows:
MIN: 320 kaf (51 percent of avg)
MOST: 490 kaf (78 percent of avg)
MAX: 890 kaf (142 percent of avg)

The release is expected to remain at its current level of 350 cfs throughout the remainder of the winter.

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 January 21st, 2025 at 1:00 PM in a virtual format.

Glen Canyon Dam / Lake Powell

Current Status
The unregulated inflow volume to Lake Powell during December was 299 thousand acre-feet (kaf) (93 percent of average). The release volume from Glen Canyon Dam in December was 599 kaf. The end of December elevation and storage of Lake Powell were 3,571.99 feet (127 feet from full pool) and 8.67 million acre-feet (maf) (37 percent of live capacity), respectively.

Current Operations

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The August 2024 24-Month study projects the January 1, 2025, 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

[2] 2024 Interim Guidelines SEIS ROD is available online at: https://www.usbr.gov/ColoradoRiverBasin/documents/NearTermColoradoRiverOperations/20240507-Near-termColoradoRiverOperations-SEIS-RecordofDecision-signed_508.pdf.

Section 6.C.1 of the Interim Guidelines, as amended by the 2024 Interim Guidelines SEIS ROD), the operational tier for Lake Powell in water year 2025 is the Mid-Elevation Release Tier and the water year release volume from Lake Powell is projected to be 7.48 maf.

On May 9, 2024, Reclamation published the 2024 Interim Guidelines SEIS ROD, which included modifications to Sections 2, 6, and 7 of the 2007 Interim Guidelines. The current 24-Month Study reflects these modifications in modeled operations.

On July 3, 2024, Reclamation signed the Glen Canyon Dam Long-Term Experimental and Management Plan Supplemental Environmental Impact Statement Record of Decision (2024 LTEMP SEIS ROD[3]). The 2024 LTEMP SEIS ROD analyzed flow options to disrupt smallmouth bass and other warm water invasive non-native fish from establishing below Glen Canyon Dam by interrupting spawning and species expansion.

The trigger to begin releasing cooler water from the river outlet works or bypass tubes at Glen Canyon Dam is three days of observed river temperatures above the threshold at River Mile 61 (Little Colorado River tributary). This temperature target was met, and Reclamation began releasing water from the river outlets on July 9, 2024, to cool water. Additional bypass releases continued until November 19, 2024, when the temperature threshold was no longer exceeded without additional outlet release.

January release volume is 7220 kaf and hourly releases during January 2025 will fluctuate from a low of approximately 8,672 cfs during the early morning hours to a high of approximately 15,176 cfs during the afternoon and evening hours. The anticipated monthly release volume for February is 638,000 acre-feet and anticipated hourly releases during February 2025 will fluctuate from a low of approximately 8,720 cfs during the early morning hours to a high of approximately 14,468 cfs during the afternoon and evening hours. The February pattern will be confirmed with a subsequent directive toward the end of January.

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

[3] 2024 LTEMP SEIS ROD is available online at: https://www.usbr.gov/uc/DocLibrary/EnvironmentalImpactStatements/GlenCanyonDamLong-TermExperimentalManagementPlan/20240703-GCDLTEMP-FinalSEIS-RecordofDecision-508-AMWD.pdf

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 2025 unregulated inflow to Lake Powell, issued on January 6, 2025, by the Colorado Basin River Forecast Center, projects that the most probable (median) unregulated inflow volume in water year 2025 will be 7.83 maf (82 percent of average).

In addition to the January 2025 24-Month Study based on the Most Probable inflow scenario, Reclamation has conducted runs to determine a possible range of reservoir elevations. The January 2025 24-Month Study probable most, minimum probable maximum probable 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 January forecast for water year 2025 ranges from a minimum probable of 5.78 maf (60 percent of average) to a maximum probable of 12.56 maf (131 percent of average) with the most probable forecast for water year 2025 of 7.83 maf (82 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 2025 of 7.83 maf unregulated inflow for water year 2025, the December 24-Month Study projects Lake Powell elevation will end water year 2025 near 3576.12 feet with approximately 8.99 maf in storage (39 percent of capacity). Projections of end of water year 2025 elevation using the January minimum and maximum inflow forecast results from the 24-Month Study model run are 3,556.05 feet and 3,623.23 feet, respectively. The annual release volume from Lake Powell during water year 2025 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 2025 unregulated inflow to Lake Powell is projected to be 7.83 maf (82 percent of average).

At the beginning of water year 2025, total system storage in the Colorado River Basin was 25.15 maf (43 percent of 58.48 maf total system capacity). This is a decrease of 110 kaf over the total storage at the beginning of water year 2024 when total system storage was 25.26 maf (43 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 beginning of water year 2023 with 19.55 maf (33 percent of capacity). Based on current inflow forecasts, the current projected end of water year 2025 total Colorado Basin reservoir storage is approximately 24.70 maf (42.2 percent of total system capacity). The actual end of water year 2025 system storage may vary from this projection, primarily due to uncertainty regarding this season's runoff and reservoir inflow.