



To: All Annual Operating Plan Recipients

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The operation of Lake Powell and Lake Mead in this November 2021 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 2021 Annual Operating Plan (AOP) and draft 2022 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.

Consistent with Section 2.B.5 of the Interim Guidelines, the Intentionally Created Surplus (ICS) Surplus Condition is the criterion governing the operation of Lake Mead for calendar year 2021. In addition, Section III.B of Exhibit 1 to the Lower Basin Drought Contingency Plan (DCP) Agreement is also governing the operation of Lake Mead in calendar year 2021.

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 will be the Mid-Elevation Release Tier and the water year release volume from Lake Powell will be 7.48 maf.

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 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 calendar year 2022.

The 2022 operational tier determinations for Lake Powell and Lake Mead will be documented in the 2022 AOP, which is currently in development.

Consistent with the Upper Basin Drought Response Operations Agreement (DROA) provisions to protect a target elevation at Lake Powell of 3,525 feet, this November 2021 24-Month Study includes releases from the upstream initial units of the Colorado River Storage Project Act to deliver an additional 181 thousand acre-feet (kaf) to Lake Powell by the end of December 2021. The additional releases began in July and will continue to be implemented through December 2021. The table below contains the observed DROA releases and additional planned releases:

	Jul (kaf)	Aug (kaf)	Sep (kaf)	Oct (kaf)	Nov (kaf)	Dec (kaf)	Total (kaf)
Flaming Gorge Reservoir	12	45	44	24	0	0	125
Blue Mesa Reservoir	0	17	16	3	0	0	36
Navajo Reservoir	0	0	0	0	0	20	20
Total (kaf)	12	62	60	27	0	20	181

The releases detailed above are in addition to the already established releases determined by operational plans for each of the identified facilities. The additional delivery of 181 kaf is equivalent to Lake Powell's elevation of approximately three feet.

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 October was 0.317 maf or 70 percent of the 30-year average from 1991 to 2020. The November unregulated inflow forecast for Lake Powell is 0.330 maf or 79 percent of the 30-year average. The 2022 April through July unregulated inflow forecast is 5.270 maf or 82 percent of average.

In this study, the calendar year 2021 diversion for Metropolitan Water District of Southern California (MWD) is projected to be 1.078 maf. The calendar year 2021 diversion for the Central Arizona Project (CAP) is projected to be 1.376 maf. Consumptive use for Nevada above Hoover (SNWP Use) is projected to be 0.239 maf for calendar year 2021.

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:

Forecast Point	Observed Inflow (kaf)				Oct %Avg	Inflow Forecast (kaf)		
	Jul	Aug	Sep	Oct		Nov	Dec	Jan
Lake Powell	193	292	159	317	70%	330	270	270
Fontenelle	45	35	26	37	82%	35	27	23
Flaming Gorge	48	44	27	48	90%	43	27	29
Blue Mesa	53	45	18.9	27	74%	22	19	17
Morrow Point	54	46	19.2	27	71%	23	20	18
Crystal	60	52	23	32	75%	26	23	22
Taylor Park	11	6.9	3.9	4.9	75%	3.9	3.5	3.2
Vallecito	18.8	13.3	7.1	7.7	55%	6	4.5	4
Navajo	24	5.1	-1.85	22	57%	21	17	17
Lemon	3.9	2.5	0.87	1.78	63%	1	0.7	0.6
McPhee	11	8.6	2.5	5	60%	3	2.5	2.5
Ridgway	11.5	8	4.2	5.2	70%	4.5	3.5	3.2
Deerlodge	8.3	5.7	3.3	19.9	68%	26	19	19
Durango	32	22	10.8	15.3	60%	13	11	10

The 2021 AOP is available online at:

<https://www.usbr.gov/lc/region/g4000/aop/AOP21.pdf>.

The Draft 2022 AOP is available online at at:

https://www.usbr.gov/lc/region/g4000/AOP2022/2022%20AOP_2021-08-26_Consultation-3.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 at:

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

The Upper Basin Hydrology Summary is available online at:

https://www.usbr.gov/uc/water/crsp/studies/24Month_11_ucb.pdf.

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Fontenelle Reservoir



— BUREAU OF —
RECLAMATION

Date	Regulated Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	Power Release (1000 Ac-Ft)	Bypass Release (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)
* Nov 2020	33	1	17	35	52	6487.89	205
H Dec 2020	27	1	50	1	51	6483.85	180
I Jan 2021	25	1	48	2	51	6479.03	153
S Feb 2021	24	0	46	0	46	6474.49	132
T Mar 2021	40	0	51	0	51	6472.03	121
O Apr 2021	54	1	49	0	49	6473.03	125
R May 2021	76	1	49	0	49	6478.67	152
I Jun 2021	143	2	42	0	42	6494.76	251
C Jul 2021	45	2	43	0	43	6494.70	250
A Aug 2021	35	2	41	0	41	6493.52	242
L Sep 2021	26	2	36	0	36	6491.82	230
WY 2021	561	14	471	94	566		
* Oct 2021	37	1	33	4	37	6491.62	229
Nov 2021	35	1	49	0	49	6489.48	224
Dec 2021	27	1	55	0	55	6484.93	195
Jan 2022	23	1	55	0	55	6479.16	162
Feb 2022	22	0	50	0	50	6473.37	133
Mar 2022	39	0	55	0	55	6469.55	116
Apr 2022	65	1	12	44	56	6471.52	125
May 2022	120	1	85	0	85	6478.69	159
Jun 2022	270	2	102	32	133	6499.39	294
Jul 2022	170	3	101	21	123	6505.18	338
Aug 2022	60	2	81	0	81	6502.27	315
Sep 2022	37	2	37	23	60	6498.99	291
WY 2022	905	15	715	124	839		
Oct 2022	43	1	61	0	61	6496.34	271
Nov 2022	41	1	66	0	66	6492.70	245
Dec 2022	32	1	69	0	69	6486.96	207
Jan 2023	30	1	69	0	69	6480.32	168
Feb 2023	28	0	62	0	62	6473.22	133
Mar 2023	50	0	69	0	69	6468.85	114
Apr 2023	77	1	74	0	74	6469.43	116
May 2023	167	1	91	0	91	6484.35	191
Jun 2023	303	2	103	93	196	6499.66	296
Jul 2023	147	3	101	6	108	6504.39	332
Aug 2023	58	2	68	0	68	6502.93	321
Sep 2023	38	2	65	0	65	6499.14	292
WY 2023	1015	15	900	99	999		
Oct 2023	44	1	68	0	68	6495.78	267

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Flaming Gorge Reservoir



— BUREAU OF —
RECLAMATION

	Date	Unreg Inflow (1000 Ac-Ft)	Reg Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	Power Release (1000 Ac-Ft)	Bypass Release (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Bank Storage (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)	Jensen Flow (1000 Ac-Ft)
*	Nov 2020	37	55	4	54	0	54	128	6025.33	3172	82
H	Dec 2020	24	48	2	62	0	62	127	6024.91	3157	88
I	Jan 2021	31	57	2	62	0	62	127	6024.75	3151	88
S	Feb 2021	31	52	2	56	0	56	127	6024.59	3145	79
T	Mar 2021	68	79	3	52	0	52	127	6025.21	3168	96
O	Apr 2021	72	67	5	51	0	51	128	6025.49	3178	112
R	May 2021	96	72	8	95	0	95	127	6024.69	3149	296
I	Jun 2021	148	46	10	80	0	80	125	6023.52	3106	205
C	Jul 2021	48	43	12	65	0	65	124	6022.61	3073	80
A	Aug 2021	44	50	12	98	0	98	121	6021.02	3016	111
L	Sep 2021	27	37	10	96	0	96	119	6019.15	2950	107
	WY 2021	650	657	77	835	0	835				1430
*	Oct 2021	49	50	7	77	0	77	117	6018.23	2918	107
	Nov 2021	43	57	3	51	0	51	118	6018.31	2920	77
	Dec 2021	27	55	2	52	0	52	118	6018.35	2922	71
	Jan 2022	29	61	2	52	0	52	118	6018.56	2929	71
	Feb 2022	31	59	2	47	0	47	118	6018.83	2938	67
	Mar 2022	77	93	3	52	0	52	120	6019.87	2975	103
	Apr 2022	100	91	5	51	0	51	121	6020.84	3010	236
	May 2022	175	140	7	52	0	52	124	6022.98	3086	537
	Jun 2022	335	198	10	232	0	232	123	6021.84	3045	617
	Jul 2022	200	153	13	73	0	73	125	6023.62	3110	138
	Aug 2022	70	91	12	108	0	108	124	6022.83	3081	121
	Sep 2022	45	68	11	106	0	106	122	6021.52	3034	119
	WY 2022	1181	1116	75	953	0	953				2265
	Oct 2022	56	74	7	69	0	69	122	6021.48	3032	106
	Nov 2022	52	77	3	63	0	63	122	6021.78	3043	100
	Dec 2022	33	70	2	88	0	88	122	6021.27	3025	112
	Jan 2023	40	79	2	88	0	88	121	6020.99	3015	112
	Feb 2023	41	76	2	79	0	79	121	6020.86	3010	104
	Mar 2023	87	105	3	52	0	52	123	6022.20	3058	126
	Apr 2023	113	110	5	51	0	51	125	6023.65	3111	253
	May 2023	244	168	8	121	0	121	127	6024.67	3148	634
	Jun 2023	392	285	10	167	0	167	131	6027.44	3251	534
	Jul 2023	160	120	13	67	0	67	132	6028.45	3290	121
	Aug 2023	65	74	13	104	0	104	131	6027.39	3249	122
	Sep 2023	42	69	11	105	0	105	129	6026.21	3205	117
	WY 2023	1325	1309	78	1053	0	1053				2443
	Oct 2023	52	75	7	71	0	71	129	6026.14	3203	96

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Taylor Park Reservoir



— BUREAU OF —
RECLAMATION

Date	Regulated Inflow (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)
* Nov 2020	4	5	9308.44	67
H Dec 2020	4	5	9307.73	66
I Jan 2021	4	5	9306.89	65
S Feb 2021	3	5	9305.99	64
T Mar 2021	4	5	9304.90	62
O Apr 2021	7	5	9305.94	64
R May 2021	16	10	9310.13	70
I Jun 2021	24	16	9314.87	78
C Jul 2021	11	16	9311.57	72
A Aug 2021	7	15	9306.36	64
L Sep 2021	4	10	9302.48	59
WY 2021	92	102		
* Oct 2021	5	5	9302.69	59
Nov 2021	4	5	9302.27	58
Dec 2021	4	5	9301.48	57
Jan 2022	3	5	9300.47	56
Feb 2022	3	4	9299.36	54
Mar 2022	3	5	9298.31	53
Apr 2022	7	5	9299.44	54
May 2022	24	10	9309.05	68
Jun 2022	36	15	9321.33	89
Jul 2022	14	19	9318.31	84
Aug 2022	8	16	9313.56	76
Sep 2022	6	13	9309.11	68
WY 2022	115	105		
Oct 2022	6	6	9309.10	68
Nov 2022	4	5	9308.72	68
Dec 2022	4	5	9308.19	67
Jan 2023	5	5	9307.84	67
Feb 2023	4	5	9307.29	66
Mar 2023	5	5	9306.90	65
Apr 2023	9	9	9306.95	65
May 2023	26	15	9313.90	76
Jun 2023	40	18	9326.06	98
Jul 2023	15	23	9321.78	90
Aug 2023	8	18	9316.35	80
Sep 2023	7	17	9310.32	70
WY 2023	133	132		
Oct 2023	7	9	9308.82	68

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Blue Mesa Reservoir



— BUREAU OF —
RECLAMATION

	Date	UnReg Inflow (1000 Ac-Ft)	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)
*	Nov 2020	25	25	0	18	0	18	7464.59	396
H	Dec 2020	21	22	0	21	0	21	7464.73	397
I	Jan 2021	22	23	0	19	0	19	7465.24	400
S	Feb 2021	20	22	0	21	0	21	7465.37	401
T	Mar 2021	29	30	0	32	0	32	7465.07	399
O	Apr 2021	47	46	1	79	0	79	7459.68	365
R	May 2021	90	83	1	96	2	98	7457.14	350
I	Jun 2021	127	119	1	77	0	77	7463.84	391
C	Jul 2021	53	58	1	98	0	98	7457.21	350
A	Aug 2021	45	53	1	93	0	93	7450.20	310
L	Sep 2021	19	25	1	94	0	94	7436.58	241
	WY 2021	518	528	6	713	2	715		
*	Oct 2021	27	26	0	58	0	58	7429.52	209
	Nov 2021	22	23	0	17	0	17	7430.67	214
	Dec 2021	19	20	0	18	0	18	7431.22	216
	Jan 2022	17	18	0	17	0	17	7431.61	218
	Feb 2022	16	18	0	14	0	14	7432.26	221
	Mar 2022	28	29	0	18	0	18	7434.62	232
	Apr 2022	51	50	0	44	0	44	7435.75	237
	May 2022	169	155	1	168	0	168	7432.85	224
	Jun 2022	240	219	1	56	0	56	7463.07	386
	Jul 2022	85	91	1	73	0	73	7465.59	402
	Aug 2022	49	57	1	80	0	80	7461.83	378
	Sep 2022	32	39	1	72	0	72	7456.23	345
	WY 2022	755	745	6	636	0	636		
	Oct 2022	34	34	0	69	0	69	7450.08	310
	Nov 2022	31	32	0	14	0	14	7453.15	327
	Dec 2022	26	27	0	16	0	16	7455.14	338
	Jan 2023	25	26	0	16	0	16	7456.78	348
	Feb 2023	23	24	0	14	0	14	7458.46	358
	Mar 2023	38	38	0	18	0	18	7461.76	378
	Apr 2023	78	78	1	39	0	39	7467.84	417
	May 2023	203	192	1	166	0	166	7471.59	442
	Jun 2023	250	228	1	61	0	61	7493.84	608
	Jul 2023	86	95	1	75	0	75	7496.08	626
	Aug 2023	56	65	1	79	0	79	7494.23	611
	Sep 2023	35	45	1	74	0	74	7490.49	581
	WY 2023	887	885	7	641	0	641		
	Oct 2023	36	38	1	70	0	70	7486.28	549

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Morrow Point Reservoir



— BUREAU OF —
RECLAMATION

	Date	Unreg Inflow (1000 Ac-Ft)	Blue Mesa Release (1000 Ac-Ft)	Side Inflow (1000 Ac-Ft)	Total Inflow (1000 Ac-Ft)	Power Release (1000 Ac-Ft)	Bypass Release (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)
*	Nov 2020	27	18	2	20	23	0	23	7147.26	107
H	Dec 2020	24	21	3	24	23	0	23	7148.38	108
I	Jan 2021	23	19	1	21	23	0	23	7145.78	106
S	Feb 2021	21	21	1	22	21	0	21	7146.38	106
T	Mar 2021	30	32	1	33	35	0	35	7143.99	104
O	Apr 2021	49	79	1	81	82	0	82	7141.50	103
R	May 2021	93	98	4	102	91	0	91	7155.08	113
I	Jun 2021	132	77	4	81	85	0	85	7150.02	109
C	Jul 2021	54	98	1	99	97	0	97	7152.51	111
A	Aug 2021	46	93	1	93	94	0	94	7150.92	110
L	Sep 2021	19	94	0	94	93	0	93	7152.50	111
	WY 2021	539	715	21	736	734	0	734		
*	Oct 2021	27	58	1	59	61	0	61	7149.67	109
	Nov 2021	23	17	1	18	15	0	15	7153.73	112
	Dec 2021	20	18	1	19	19	0	19	7153.73	112
	Jan 2022	18	17	1	18	18	0	18	7153.73	112
	Feb 2022	18	14	2	16	16	0	16	7153.73	112
	Mar 2022	32	18	4	22	22	0	22	7153.73	112
	Apr 2022	58	44	7	51	51	0	51	7153.73	112
	May 2022	188	168	19	187	187	0	187	7153.73	112
	Jun 2022	260	56	20	76	76	0	76	7153.72	112
	Jul 2022	89	73	4	77	77	0	77	7153.73	112
	Aug 2022	52	80	3	83	83	0	83	7153.73	112
	Sep 2022	35	72	3	75	75	0	75	7153.73	112
	WY 2022	820	636	66	701	699	0	699		
	Oct 2022	37	69	3	72	72	0	72	7153.73	112
	Nov 2022	33	14	2	16	16	0	16	7153.73	112
	Dec 2022	27	16	1	17	17	0	17	7153.73	112
	Jan 2023	26	16	1	17	17	0	17	7153.73	112
	Feb 2023	25	14	1	15	15	0	15	7153.73	112
	Mar 2023	40	18	2	20	20	0	20	7153.73	112
	Apr 2023	89	39	11	49	49	0	49	7153.73	112
	May 2023	226	166	23	188	188	0	188	7153.73	112
	Jun 2023	265	61	15	76	76	0	76	7153.72	112
	Jul 2023	90	75	4	79	79	0	79	7153.73	112
	Aug 2023	56	79	0	80	80	0	80	7153.73	112
	Sep 2023	36	74	1	75	75	0	75	7153.73	112
	WY 2023	951	641	64	704	704	0	704		
	Oct 2023	37	70	1	72	72	0	72	7153.73	112

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*
Crystal Reservoir



— BUREAU OF —
RECLAMATION

		Unreg Inflow	Morrow Release	Side Inflow	Total Inflow	Power Release	Bypass Release	Total Release	Reservoir Elev End of Month	Live Storage	Tunnel Flow	Below Tunnel Flow
	Date	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)
*	Nov 2020	29	23	2	25	25	0	25	6751.22	16	0	24
H	Dec 2020	27	23	2	26	25	0	26	6751.57	17	1	24
I	Jan 2021	25	23	2	25	25	0	25	6748.38	16	0	24
S	Feb 2021	24	21	2	23	23	0	23	6748.83	16	0	22
T	Mar 2021	32	35	2	37	37	0	37	6748.74	16	11	25
O	Apr 2021	54	82	6	88	86	0	87	6752.67	17	51	36
R	May 2021	103	91	10	101	100	1	100	6753.35	17	64	37
I	Jun 2021	140	85	9	94	94	0	94	6751.32	16	62	33
C	Jul 2021	60	97	6	103	103	0	103	6750.41	16	65	41
A	Aug 2021	52	94	6	100	100	0	100	6751.69	17	65	38
L	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
*	Oct 2021	32	61	5	66	34	32	66	6752.35	17	41	25
	Nov 2021	26	15	3	18	18	0	18	6753.04	17	0	18
	Dec 2021	23	19	3	22	22	0	22	6753.04	17	0	22
	Jan 2022	22	18	4	22	22	0	22	6753.04	17	0	22
	Feb 2022	21	16	3	19	19	0	19	6753.04	17	0	19
	Mar 2022	36	22	4	26	25	1	26	6753.04	17	5	21
	Apr 2022	67	51	9	60	43	17	60	6753.04	17	42	18
	May 2022	215	187	27	214	134	79	214	6753.04	17	62	152
	Jun 2022	285	76	25	101	100	0	100	6753.03	17	61	39
	Jul 2022	98	77	9	86	86	0	86	6753.04	17	65	21
	Aug 2022	55	83	3	86	86	0	86	6753.04	17	65	21
	Sep 2022	40	75	5	80	80	0	80	6753.04	17	55	25
	WY 2022	920	699	100	799	670	129	799			396	403
	Oct 2022	43	72	6	77	52	25	77	6753.04	17	55	22
	Nov 2022	38	16	5	21	21	0	21	6753.04	17	0	21
	Dec 2022	32	17	5	22	21	0	21	6753.04	17	0	21
	Jan 2023	31	17	4	22	22	0	22	6753.04	17	0	22
	Feb 2023	29	15	4	19	19	0	19	6753.04	17	0	19
	Mar 2023	46	20	7	26	26	0	26	6753.04	17	5	21
	Apr 2023	100	49	11	60	60	0	60	6753.04	17	42	18
	May 2023	251	188	25	214	134	80	214	6753.04	17	62	152
	Jun 2023	293	76	28	104	104	0	104	6753.03	17	61	43
	Jul 2023	98	79	8	86	86	0	86	6753.04	17	65	21
	Aug 2023	63	80	7	86	86	0	86	6753.04	17	65	21
	Sep 2023	42	75	5	80	80	0	80	6753.04	17	55	25
	WY 2023	1064	704	113	817	712	105	817			410	407
	Oct 2023	43	72	6	78	52	25	78	6753.04	17	55	23

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Vallecito Reservoir



— BUREAU OF —
RECLAMATION

	Date	Regulated Inflow (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)
*	Nov 2020	3	0	7623.08	33
H	Dec 2020	3	0	7624.62	36
I	Jan 2021	3	0	7626.24	38
S	Feb 2021	3	0	7627.63	41
T	Mar 2021	4	0	7629.73	44
O	Apr 2021	14	1	7636.28	57
R	May 2021	50	30	7645.56	77
I	Jun 2021	44	39	7647.63	81
C	Jul 2021	19	36	7639.49	63
A	Aug 2021	13	34	7628.72	43
L	Sep 2021	7	26	7615.74	24
WY 2021		166	169		
*	Oct 2021	8	3	7619.62	29
	Nov 2021	6	2	7622.61	33
	Dec 2021	5	2	7624.35	36
	Jan 2022	4	2	7625.69	38
	Feb 2022	4	2	7626.78	39
	Mar 2022	6	2	7628.86	43
	Apr 2022	15	2	7635.85	56
	May 2022	62	31	7649.72	87
	Jun 2022	58	43	7655.70	101
	Jul 2022	17	42	7645.29	76
	Aug 2022	12	38	7632.74	50
	Sep 2022	10	30	7620.57	30
WY 2022		205	196		
	Oct 2022	9	17	7614.01	22
	Nov 2022	8	2	7618.88	28
	Dec 2022	7	2	7622.40	33
	Jan 2023	6	2	7625.06	37
	Feb 2023	5	2	7627.34	40
	Mar 2023	10	2	7631.74	48
	Apr 2023	23	2	7642.34	70
	May 2023	68	31	7657.58	106
	Jun 2023	62	43	7664.49	124
	Jul 2023	21	42	7656.55	103
	Aug 2023	15	38	7647.22	81
	Sep 2023	16	30	7640.89	66
WY 2023		250	211		
	Oct 2023	13	17	7638.79	62

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*
Navajo Reservoir



— BUREAU OF —
RECLAMATION

		Mod Unreg	Azotea	Reg	Evap	NIIP	Total	Reservoir Elev	Live	Farmington
	Date	Inflow	Tunnel Div	Inflow	Losses	Diversion	Release	End of Month	Storage	Flow
		(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)
*	Nov 2020	17	0	14	1	0	22	6038.29	1094	37
H	Dec 2020	10	0	7	1	0	22	6036.88	1079	33
I	Jan 2021	12	0	10	1	0	24	6035.47	1065	33
S	Feb 2021	13	0	11	1	1	22	6034.25	1052	32
T	Mar 2021	23	1	19	1	4	24	6033.31	1042	32
O	Apr 2021	82	13	57	2	20	32	6033.54	1045	31
R	May 2021	169	25	124	3	34	26	6039.27	1105	65
I	Jun 2021	103	18	78	4	44	21	6040.14	1114	89
C	Jul 2021	24	2	40	4	45	35	6035.96	1070	57
A	Aug 2021	5	1	24	3	39	41	6030.18	1010	48
L	Sep 2021	-2	0	17	2	25	50	6024.10	951	49
	WY 2021	463	60	406	23	222	360			549
*	Oct 2021	22	0	17	1	2	30	6022.31	887	41
	Nov 2021	21	0	17	1	0	18	6022.11	885	31
	Dec 2021	17	0	14	0	0	39	6019.33	860	50
	Jan 2022	17	0	15	0	0	19	6018.78	855	29
	Feb 2022	20	0	18	1	0	17	6018.87	856	24
	Mar 2022	45	2	40	1	5	19	6020.52	871	31
	Apr 2022	95	9	73	2	21	18	6024.05	903	49
	May 2022	205	26	148	3	35	18	6033.59	995	135
	Jun 2022	160	19	126	3	51	18	6038.80	1048	148
	Jul 2022	30	1	53	4	56	22	6036.09	1020	71
	Aug 2022	23	1	48	3	47	29	6033.01	989	57
	Sep 2022	25	0	44	2	26	26	6032.03	979	48
	WY 2022	680	58	613	21	243	273			714
	Oct 2022	42	1	49	1	9	20	6033.83	997	39
	Nov 2022	38	1	31	1	0	18	6035.09	1010	35
	Dec 2022	24	0	19	1	0	18	6035.07	1010	33
	Jan 2023	22	0	17	1	0	18	6034.92	1008	32
	Feb 2023	29	0	25	1	0	17	6035.66	1016	29
	Mar 2023	92	9	76	1	5	18	6040.56	1066	41
	Apr 2023	147	17	108	2	21	18	6046.75	1134	69
	May 2023	252	33	182	3	35	18	6057.32	1259	153
	Jun 2023	187	23	145	4	51	18	6062.96	1331	162
	Jul 2023	32	2	51	4	56	21	6060.61	1300	72
	Aug 2023	23	1	45	4	47	28	6057.93	1267	57
	Sep 2023	31	1	44	3	26	22	6057.38	1260	49
	WY 2023	919	88	791	25	250	236			771
	Oct 2023	35	1	38	2	9	19	6058.03	1268	42

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Lake Powell



— BUREAU OF —
RECLAMATION

		Unreg	Regulated	Evap	PowerPlant	Bypass	Total	Reservoir Elev	Bank	EOM	Lees
	Date	Inflow	Inflow	Losses	Release	Release	Release	End of Month	Storage	Storage	Ferry Gage
		(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)
*	Nov 2020	261	279	29	640	0	640	3587.72	4903	10615	650
H	Dec 2020	168	217	23	719	0	719	3582.21	4864	10130	716
I	Jan 2021	198	239	7	763	0	763	3576.45	4825	9638	757
S	Feb 2021	201	235	7	675	0	675	3571.46	4792	9226	670
T	Mar 2021	297	299	11	700	0	700	3566.71	4761	8844	698
O	Apr 2021	289	279	17	628	0	628	3562.37	4734	8504	635
R	May 2021	543	495	20	624	0	624	3560.57	4723	8366	649
I	Jun 2021	809	640	31	651	0	651	3560.06	4720	8328	663
C	Jul 2021	193	305	36	767	0	767	3553.88	4683	7866	764
A	Aug 2021	292	452	35	801	0	801	3548.96	4655	7511	785
L	Sep 2021	159	380	31	622	0	622	3545.36	4634	7258	626
	WY 2021	3502	4064	277	8229	0	8229				8280
*	Oct 2021	317	419	21	481	0	481	3544.25	4628	7181	491
	Nov 2021	330	327	20	500	0	500	3541.63	4614	7001	503
	Dec 2021	270	316	16	600	0	600	3537.49	4592	6723	603
	Jan 2022	270	295	4	723	0	723	3531.33	4560	6323	732
	Feb 2022	300	311	4	639	0	639	3526.44	4535	6016	650
	Mar 2022	430	376	7	675	0	675	3521.80	4512	5732	691
	Apr 2022	670	566	12	601	0	601	3521.08	4509	5689	619
	May 2022	1650	1400	14	599	0	599	3532.81	4567	6418	618
	Jun 2022	2200	1840	26	628	0	628	3549.03	4655	7516	647
	Jul 2022	750	660	33	709	0	709	3547.95	4649	7439	732
	Aug 2022	320	443	33	758	0	758	3543.33	4623	7118	782
	Sep 2022	290	419	30	567	0	567	3540.91	4610	6953	584
	WY 2022	7797	7372	222	7480	0	7480				7653
	Oct 2022	428	465	20	480	0	480	3540.43	4607	6920	492
	Nov 2022	481	455	20	500	0	500	3539.53	4602	6860	503
	Dec 2022	352	391	16	600	0	600	3536.40	4586	6652	603
	Jan 2023	347	382	4	723	0	723	3531.47	4560	6332	732
	Feb 2023	396	412	5	639	0	639	3528.08	4543	6118	650
	Mar 2023	613	499	8	675	0	675	3525.34	4529	5947	691
	Apr 2023	935	741	12	601	0	601	3527.25	4539	6066	619
	May 2023	2114	1789	16	599	0	599	3543.85	4626	7153	618
	Jun 2023	2478	1970	29	628	0	628	3560.61	4723	8369	647
	Jul 2023	709	651	37	709	0	709	3559.45	4716	8282	732
	Aug 2023	361	475	36	758	0	758	3555.51	4693	7986	782
	Sep 2023	312	431	33	568	0	568	3553.37	4680	7829	585
	WY 2023	9526	8661	235	7480	0	7480				7655
	Oct 2023	417	465	22	643	0	643	3550.81	4665	7643	655

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Hoover Dam - Lake Mead



— BUREAU OF —
RECLAMATION

		Glen Release	Side Inflow	Evap	Total	Total	SNWP	Downstream	Bank	Reservoir Elev	EOM
	Date	(1000 Ac-Ft)	Glen to Hoover	Losses	Release	Release	Use	Requirements	Storage	End of Month	Storage
		(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 CFS)	(1000 Ac-Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)	(Ft)	(1000 Ac-Ft)
*	Nov 2020	640	56	42	714	12.0	11	718	656	1081.07	10100
H	Dec 2020	719	59	37	497	8.1	8	500	671	1083.72	10322
I	Jan 2021	763	72	30	593	9.6	11	616	683	1085.95	10510
S	Feb 2021	675	55	28	574	10.3	8	581	690	1087.26	10622
T	Mar 2021	700	33	31	945	15.4	15	936	675	1084.39	10378
O	Apr 2021	628	36	38	1057	17.8	22	1056	647	1079.30	9953
R	May 2021	624	28	43	1086	17.7	27	1077	616	1073.50	9480
I	Jun 2021	651	-14	51	956	16.1	32	945	592	1068.77	9102
C	Jul 2021	767	95	63	862	14.0	31	854	586	1067.65	9014
A	Aug 2021	801	89	67	766	12.5	31	766	587	1067.96	9038
L	Sep 2021	622	50	55	616	10.4	24	614	586	1067.68	9016
	WY 2021	8229	593	529	9396		241	9396			
*	Oct 2021	481	81	40	581	9.4	17	585	581	1066.77	8945
	Nov 2021	500	71	40	646	10.9	13	646	574	1065.23	8825
	Dec 2021	600	67	34	455	7.4	7	455	584	1067.28	8985
	Jan 2022	723	95	28	546	8.9	11	546	598	1070.06	9204
	Feb 2022	639	97	26	539	9.7	9	539	608	1071.96	9356
	Mar 2022	675	111	30	902	14.7	15	902	598	1070.06	9205
	Apr 2022	601	81	36	984	16.5	17	984	577	1065.82	8870
	May 2022	599	50	41	954	15.5	21	954	554	1061.36	8526
	Jun 2022	628	29	48	913	15.4	29	913	534	1057.21	8213
	Jul 2022	709	64	60	806	13.1	33	806	526	1055.63	8095
	Aug 2022	758	81	63	774	12.6	34	774	524	1055.23	8065
	Sep 2022	567	71	52	689	11.6	31	689	516	1053.53	7940
	WY 2022	7480	899	498	8790		237	8794			
	Oct 2022	480	58	37	542	8.8	26	542	512	1052.67	7877
	Nov 2022	500	71	37	659	11.1	15	659	503	1050.86	7745
	Dec 2022	600	67	32	555	9.0	10	555	508	1051.76	7811
	Jan 2023	723	95	26	524	8.5	11	524	523	1055.04	8051
	Feb 2023	639	97	25	546	9.8	9	546	533	1057.01	8198
	Mar 2023	675	111	28	897	14.6	16	897	523	1055.06	8053
	Apr 2023	601	81	34	981	16.5	17	981	502	1050.57	7724
	May 2023	599	50	38	956	15.6	21	956	480	1045.77	7381
	Jun 2023	628	29	45	920	15.5	29	920	459	1041.25	7064
	Jul 2023	709	64	55	815	13.3	34	815	451	1039.46	6941
	Aug 2023	758	81	58	784	12.8	35	784	449	1038.94	6905
	Sep 2023	568	71	48	693	11.6	31	693	441	1037.11	6780
	WY 2023	7480	876	463	8874		255	8874			
	Oct 2023	643	58	35	532	8.7	26	532	447	1038.60	6882

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Davis Dam - Lake Mohave



— BUREAU OF —
RECLAMATION

	Date	Hoover Release (1000 Ac-Ft)	Side Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	Power Release (1000 Ac-Ft)	Spill Release (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Total Release (1000 CFS)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)
*	Nov 2020	714	-34	11	560	0	560	9.4	639.83	1613
H	Dec 2020	497	-6	9	509	0	509	8.3	638.82	1586
I	Jan 2021	593	-3	10	475	0	474	7.7	642.71	1691
S	Feb 2021	574	-17	10	550	0	550	9.9	642.63	1688
T	Mar 2021	945	-10	13	920	0	920	15.0	642.69	1690
O	Apr 2021	1057	-21	17	1028	0	1028	17.3	642.37	1682
R	May 2021	1086	-10	22	1055	0	1055	17.2	642.32	1680
I	Jun 2021	956	-2	25	901	0	901	15.1	643.33	1708
C	Jul 2021	862	-6	25	831	0	831	13.5	643.31	1707
A	Aug 2021	766	-6	23	731	0	731	11.9	643.54	1713
L	Sep 2021	616	10	18	756	0	756	12.7	638.04	1565
	WY 2021	9396	-118	198	9040	0	9040			
*	Oct 2021	581	-3	15	638	0	658	10.7	634.42	1471
	Nov 2021	646	-23	10	546	0	546	9.2	637.00	1538
	Dec 2021	455	-11	9	390	0	390	6.3	638.70	1583
	Jan 2022	546	-17	10	436	0	436	7.1	641.80	1666
	Feb 2022	539	-9	10	520	0	520	9.4	641.80	1666
	Mar 2022	902	-7	13	848	0	848	13.8	643.05	1700
	Apr 2022	984	-8	17	961	0	961	16.2	643.00	1699
	May 2022	954	-8	22	924	0	924	15.0	643.00	1699
	Jun 2022	913	-13	25	875	0	875	14.7	643.00	1699
	Jul 2022	806	-10	25	798	0	798	13.0	642.00	1671
	Aug 2022	774	-11	23	740	0	740	12.0	642.00	1671
	Sep 2022	689	-11	18	714	0	714	12.0	640.01	1617
	WY 2022	8790	-130	197	8390	0	8410			
	Oct 2022	542	-11	15	700	0	700	11.4	633.00	1434
	Nov 2022	659	-23	10	575	0	575	9.7	635.00	1486
	Dec 2022	555	-11	9	417	0	417	6.8	639.51	1604
	Jan 2023	524	-17	10	436	0	436	7.1	641.80	1666
	Feb 2023	546	-9	10	527	0	527	9.5	641.80	1666
	Mar 2023	897	-7	13	843	0	843	13.7	643.05	1700
	Apr 2023	981	-8	17	958	0	958	16.1	643.00	1699
	May 2023	956	-8	22	926	0	926	15.1	643.00	1699
	Jun 2023	920	-13	25	882	0	882	14.8	643.00	1699
	Jul 2023	815	-10	25	807	0	807	13.1	642.00	1671
	Aug 2023	784	-11	23	750	0	750	12.2	642.00	1671
	Sep 2023	693	-11	18	717	0	717	12.1	640.01	1617
	WY 2023	8874	-138	197	8538	0	8538			
	Oct 2023	532	-11	15	689	0	689	11.2	633.00	1434

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Parker Dam - Lake Havasu



— BUREAU OF —
RECLAMATION

	Date	Davis Release (1000 Ac-Ft)	Side Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Total Release (1000 CFS)	MWD Diversion (1000 Ac-Ft)	CAP Diversion (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)	Flow To Mexico (1000 Ac-Ft)	Flow To Mexico (1000 CFS)
*	Nov 2020	560	20	9	357	6.0	92	123	447.50	571	92	1.5
H	Dec 2020	509	9	7	286	4.7	95	145	446.46	551	90	1.5
I	Jan 2021	474	13	6	256	4.2	70	124	447.88	578	122	2.0
S	Feb 2021	550	-2	8	430	7.7	0	111	447.56	572	124	2.2
T	Mar 2021	920	1	9	663	10.8	99	149	447.28	566	179	2.9
O	Apr 2021	1028	0	11	728	12.2	102	163	448.04	581	167	2.8
R	May 2021	1055	-2	13	746	12.1	107	168	448.51	590	145	2.4
I	Jun 2021	901	21	15	706	11.9	103	87	448.55	591	151	2.5
C	Jul 2021	831	15	17	669	10.9	106	51	448.23	585	147	2.4
A	Aug 2021	731	16	17	586	9.5	100	48	447.51	571	121	2.0
L	Sep 2021	756	5	15	516	8.7	97	106	448.49	590	116	1.9
	WY 2021	9040	117	140	6393		1065	1441			1519	
*	Oct 2021	658	18	12	421	6.8	99	139	448.37	587	66	1.1
	Nov 2021	546	18	9	346	5.8	96	125	447.50	570	91	1.5
	Dec 2021	390	20	7	216	3.5	99	103	446.50	552	90	1.5
	Jan 2022	436	17	6	302	4.9	99	41	446.50	552	138	2.2
	Feb 2022	520	7	8	397	7.2	3	113	446.50	552	124	2.2
	Mar 2022	848	7	9	613	10.0	99	121	446.70	555	147	2.4
	Apr 2022	961	11	11	700	11.8	96	117	448.70	593	147	2.5
	May 2022	924	9	13	682	11.1	99	126	448.70	593	110	1.8
	Jun 2022	875	6	16	688	11.6	96	68	448.70	593	116	2.0
	Jul 2022	798	15	17	663	10.8	99	35	448.00	580	123	2.0
	Aug 2022	740	15	17	602	9.8	99	35	447.50	571	101	1.6
	Sep 2022	714	14	15	510	8.6	97	95	447.50	571	99	1.7
	WY 2022	8410	157	140	6140		1083	1117			1353	
	Oct 2022	700	21	12	480	7.8	106	117	447.50	571	89	1.4
	Nov 2022	575	18	9	364	6.1	100	114	447.50	571	115	1.9
	Dec 2022	417	20	7	257	4.2	106	82	446.50	552	110	1.8
	Jan 2023	436	17	6	310	5.0	87	45	446.50	552	138	2.2
	Feb 2023	527	7	8	401	7.2	4	115	446.50	552	124	2.2
	Mar 2023	843	7	9	619	10.1	87	123	446.70	555	147	2.4
	Apr 2023	958	11	11	706	11.9	84	120	448.70	593	147	2.5
	May 2023	926	9	13	694	11.3	87	128	448.70	593	110	1.8
	Jun 2023	882	6	16	704	11.8	84	71	448.70	593	116	2.0
	Jul 2023	807	15	17	680	11.1	87	39	448.00	580	123	2.0
	Aug 2023	750	15	17	620	10.1	87	39	447.50	571	101	1.6
	Sep 2023	717	14	15	524	8.8	84	98	447.50	571	99	1.7
	WY 2023	8538	161	139	6359		1005	1090			1419	
	Oct 2023	689	21	12	486	7.9	87	119	447.50	571	89	1.4

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Hoover Dam - Lake Mead



— BUREAU OF —
RECLAMATION

	Date	Power Release (1000 Ac-Ft)	Power Release (1000 CFS)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)	Change In Storage (1000 Ac-Ft)	Hoover Static Head (Ft)	Hoover Gen Capacity MW	Hoover Gross Energy MKWH	Percent of Units Available	KWH/AF
*	Nov 2020	714	12.0	1081.07	10100	-68	437.77	1303.0	275.5	85	385.6
H	Dec 2020	497	8.0	1083.72	10322	222	442.26	1266.0	191.3	81	384.9
I	Jan 2021	593	9.6	1085.95	10510	189	440.07	1191.0	233.1	74	393.3
S	Feb 2021	574	10.3	1087.26	10622	112	440.33	1080.0	225.4	67	392.4
T	Mar 2021	945	15.4	1084.39	10378	-244	437.56	1109.0	376.2	70	398.0
O	Apr 2021	1057	17.8	1079.30	9953	-425	427.23	1086.9	415.5	70	393.2
R	May 2021	1086	17.7	1073.50	9480	-473	423.99	1042.9	433.7	69	399.5
I	Jun 2021	956	16.1	1068.77	9102	-378	419.04	1451.0	366.8	100	383.7
C	Jul 2021	862	14.0	1067.65	9014	-88	421.16	1417.0	323.4	100	375.3
A	Aug 2021	766	12.5	1067.96	9038	24	421.53	1322.1	286.1	93	373.4
L	Sep 2021	616	10.4	1067.68	9016	-22	425.37	1228.0	232.0	87	376.5
WY 2021		9396							3643.8		
*	Oct 2021	581	9.4	1066.77	8945	-71	422.27	1228.0	216.2	87	372.4
	Nov 2021	646	10.9	1065.23	8825	-120	420.90	938.0	243.8	67	377.3
	Dec 2021	455	7.4	1067.28	8985	160	419.70	957.0	170.6	68	375.2
	Jan 2022	546	8.9	1070.06	9204	219	420.57	962.9	203.3	67	372.6
	Feb 2022	539	9.7	1071.96	9356	152	421.78	977.0	203.9	68	378.0
	Mar 2022	902	14.7	1070.06	9205	-151	420.77	1058.0	344.9	74	382.3
	Apr 2022	984	16.5	1065.82	8870	-334	417.16	1055.0	372.9	75	378.9
	May 2022	954	15.5	1061.36	8526	-344	412.97	1002.0	360.1	74	377.4
	Jun 2022	913	15.4	1057.21	8213	-313	406.01	1315.0	333.3	100	364.9
	Jul 2022	806	13.1	1055.63	8095	-118	403.50	1315.0	293.4	100	364.0
	Aug 2022	774	12.6	1055.23	8065	-30	402.84	1298.0	280.0	100	361.8
	Sep 2022	689	11.6	1053.53	7940	-125	402.45	1298.0	247.0	100	358.2
WY 2022		8790							3269.4		
	Oct 2022	542	8.8	1052.67	7877	-63	405.77	998.0	194.2	78	358.1
	Nov 2022	659	11.1	1050.86	7745	-132	406.07	1064.0	238.4	84	361.6
	Dec 2022	555	9.0	1051.76	7811	65	403.46	1084.0	197.8	85	356.3
	Jan 2023	524	8.5	1055.04	8051	241	403.35	1094.0	185.4	84	353.7
	Feb 2023	546	9.8	1057.01	8198	147	406.88	898.0	199.6	68	365.4
	Mar 2023	897	14.6	1055.06	8053	-145	405.38	1022.0	328.3	79	365.9
	Apr 2023	981	16.5	1050.57	7724	-329	400.87	1127.0	352.1	88	358.9
	May 2023	956	15.6	1045.77	7381	-344	396.85	1022.7	343.5	82	359.2
	Jun 2023	920	15.5	1041.25	7064	-317	392.34	978.5	326.2	81	354.4
	Jul 2023	815	13.3	1039.46	6941	-123	387.60	1191.4	283.8	100	348.2
	Aug 2023	784	12.8	1038.94	6905	-36	386.79	1187.0	271.3	100	346.1
	Sep 2023	693	11.6	1037.11	6780	-125	386.27	1171.5	237.4	100	342.5
WY 2023		8874							3158.0		
	Oct 2023	532	8.7	1038.60	6882	102	388.38	1184.1	180.8	100	339.7

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Davis Dam - Lake Mohave



— BUREAU OF —
RECLAMATION

	Date	Power Release (1000 Ac-Ft)	Power Release (1000 CFS)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)	Change In Storage (1000 Ac-Ft)	Davis Static Head (Ft)	Davis Gen Capacity MW	Davis Gross Energy MKWH	Percent of Units Available	KWH/AF
*	Nov 2020	560	9.4	639.83	1613	110	140.14	168.3	67.8	66	121.2
H	Dec 2020	509	8.3	638.82	1586	-27	135.77	153.0	65.2	60	128.2
I	Jan 2021	475	7.7	642.71	1691	105	143.89	156.3	55.9	61	117.7
S	Feb 2021	550	9.9	642.63	1688	-2	141.55	156.5	71.1	61	129.2
T	Mar 2021	920	15.0	642.69	1690	2	138.82	161.2	117.8	63	128.0
O	Apr 2021	1028	17.3	642.37	1682	-9	138.42	253.3	130.1	99	126.6
R	May 2021	1055	17.2	642.32	1680	-2	139.64	255.0	133.2	100	126.2
I	Jun 2021	901	15.1	643.33	1708	28	141.86	255.0	114.4	100	127.0
C	Jul 2021	831	13.5	643.31	1707	-1	139.09	253.3	106.2	99	127.8
A	Aug 2021	731	11.9	643.54	1713	6	144.21	255.0	93.7	100	128.2
L	Sep 2021	756	12.7	638.04	1565	-148	136.46	255.0	95.1	100	125.8
	WY 2021	9040							1141.6		
*	Oct 2021	638	10.7	634.42	1471	-95	134.72	215.5	80.2	85	125.6
	Nov 2021	546	9.2	637.00	1538	67	134.20	164.9	66.0	65	120.9
	Dec 2021	390	6.3	638.70	1583	45	137.61	187.6	48.3	74	124.0
	Jan 2022	436	7.1	641.80	1666	83	139.66	159.6	54.9	63	125.8
	Feb 2022	520	9.4	641.80	1666	0	140.21	176.7	65.7	69	126.3
	Mar 2022	848	13.8	643.05	1700	34	139.11	255.0	106.3	100	125.3
	Apr 2022	961	16.2	643.00	1699	-2	138.88	255.0	120.3	100	125.1
	May 2022	924	15.0	643.00	1699	0	139.24	255.0	115.9	100	125.4
	Jun 2022	875	14.7	643.00	1699	0	139.36	255.0	109.8	100	125.6
	Jul 2022	798	13.0	642.00	1671	-27	139.48	255.0	100.3	100	125.7
	Aug 2022	740	12.0	642.00	1671	0	139.33	255.0	92.9	100	125.5
	Sep 2022	714	12.0	640.01	1617	-54	138.35	255.0	89.0	100	124.6
	WY 2022	8390							1049.5		
	Oct 2022	700	11.4	633.00	1434	-183	134.09	227.0	84.5	89	120.8
	Nov 2022	575	9.7	635.00	1486	51	132.28	159.8	68.5	63	119.2
	Dec 2022	417	6.8	639.51	1604	118	136.80	154.7	51.4	61	123.2
	Jan 2023	436	7.1	641.80	1666	62	140.07	156.3	55.0	61	126.2
	Feb 2023	527	9.5	641.80	1666	0	140.16	156.6	66.6	61	126.3
	Mar 2023	843	13.7	643.05	1700	34	139.13	194.1	105.7	76	125.3
	Apr 2023	958	16.1	643.00	1699	-2	138.90	249.9	119.9	98	125.1
	May 2023	926	15.1	643.00	1699	0	139.23	255.0	116.1	100	125.4
	Jun 2023	882	14.8	643.00	1699	0	139.31	255.0	110.7	100	125.5
	Jul 2023	807	13.1	642.00	1671	-27	139.42	255.0	101.4	100	125.6
	Aug 2023	750	12.2	642.00	1671	0	139.27	255.0	94.1	100	125.5
	Sep 2023	717	12.1	640.01	1617	-54	138.33	255.0	89.4	100	124.6
	WY 2023	8538							1063.3		
	Oct 2023	689	11.2	633.00	1434	-183	134.16	227.0	83.3	89	120.9

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Parker Dam - Lake Havasu



— BUREAU OF —
RECLAMATION

	Date	Power Release (1000 Ac-Ft)	Power Release (1000 CFS)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)	Change In Storage (1000 Ac-Ft)	Parker Static Head (Ft)	Parker Gen Capacity MW	Parker Gross Energy MKWH	Percent of Units Available	KWH/AF
*	Nov 2020	357	6.0	447.50	571	-5	81.16	90.0	23.9	75	66.9
H	Dec 2020	286	4.7	446.46	551	-19	80.52	118.1	19.7	98	68.9
I	Jan 2021	256	4.2	447.88	578	26	82.16	97.7	16.1	81	62.9
S	Feb 2021	430	7.7	447.56	572	-6	79.82	97.2	29.8	81	69.3
T	Mar 2021	663	10.8	447.28	566	-5	79.45	120.0	46.2	100	69.7
O	Apr 2021	728	12.2	448.04	581	14	79.77	120.0	50.2	100	68.9
R	May 2021	746	12.1	448.51	590	9	80.39	120.0	52.0	100	69.7
I	Jun 2021	706	11.9	448.55	591	1	82.07	120.0	49.4	100	69.9
C	Jul 2021	669	10.9	448.23	585	-6	80.10	120.0	46.6	100	69.6
A	Aug 2021	586	9.5	447.51	571	-14	79.33	120.0	40.7	100	69.4
L	Sep 2021	516	8.7	448.49	590	19	80.37	120.0	35.7	100	69.2
WY 2021		6393							442.4		
*	Oct 2021	421	6.8	448.37	587	-2	82.15	96.8	29.7	81	70.6
	Nov 2021	346	5.8	447.50	570	-17	76.72	90.0	22.6	75	65.2
	Dec 2021	216	3.5	446.50	552	-19	74.82	110.3	13.3	92	61.4
	Jan 2022	302	4.9	446.50	552	0	75.12	93.9	19.1	78	63.5
	Feb 2022	397	7.2	446.50	552	0	75.15	93.2	25.8	78	64.9
	Mar 2022	613	10.0	446.70	555	4	74.01	120.0	39.7	100	64.7
	Apr 2022	700	11.8	448.70	593	38	75.08	120.0	46.1	100	65.8
	May 2022	682	11.1	448.70	593	0	76.05	120.0	45.3	100	66.4
	Jun 2022	688	11.6	448.70	593	0	76.05	120.0	45.7	100	66.5
	Jul 2022	663	10.8	448.00	580	-13	75.71	120.0	43.8	100	66.1
	Aug 2022	602	9.8	447.50	571	-10	75.13	120.0	39.4	100	65.5
	Sep 2022	510	8.6	447.50	571	0	74.89	120.0	33.2	100	65.0
WY 2022		6140							403.6		
	Oct 2022	480	7.8	447.50	571	0	76.09	93.9	31.6	78	65.8
	Nov 2022	364	6.1	447.50	571	0	76.29	90.0	23.7	75	65.2
	Dec 2022	257	4.2	446.50	552	-19	74.77	111.3	16.0	93	62.4
	Jan 2023	310	5.0	446.50	552	0	75.12	93.9	19.7	78	63.6
	Feb 2023	401	7.2	446.50	552	0	75.10	94.3	26.0	79	64.9
	Mar 2023	619	10.1	446.70	555	4	74.01	120.0	40.0	100	64.7
	Apr 2023	706	11.9	448.70	593	38	75.08	120.0	46.5	100	65.8
	May 2023	694	11.3	448.70	593	0	76.05	120.0	46.1	100	66.5
	Jun 2023	704	11.8	448.70	593	0	76.05	120.0	46.8	100	66.5
	Jul 2023	680	11.1	448.00	580	-13	75.71	120.0	45.0	100	66.2
	Aug 2023	620	10.1	447.50	571	-10	75.13	120.0	40.6	100	65.5
	Sep 2023	524	8.8	447.50	571	0	74.89	120.0	34.0	100	65.0
WY 2023		6359							416.2		
	Oct 2023	486	7.9	447.50	571	0	76.24	91.0	32.1	76	66.0

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Upper Basin Power



— BUREAU OF —
RECLAMATION

		Glen Canyon	Flaming Gorge	Blue Mesa	Morrow Point	Crystal Reservoir	Fontenelle Reservoir
	Date	1000 MWHR	1000 MWHR	1000 MWHR	1000 MWHR	1000 MWHR	1000 MWHR
*	Nov 2020	275	20	5	7	3	1
H	Dec 2020	304	24	5	7	3	3
I	Jan 2021	319	24	5	6	3	3
S	Feb 2021	278	21	5	6	2	3
T	Mar 2021	285	20	8	11	6	3
	Winter 2021	1738	132	46	60	25	14
O	Apr 2021	254	19	20	28	17	3
R	May 2021	249	36	24	32	20	3
I	Jun 2021	260	30	20	30	19	3
C	Jul 2021	303	24	27	34	20	3
A	Aug 2021	310	37	25	34	20	3
L	Sep 2021	238	36	24	33	19	2
	Summer 2021	1614	182	140	190	114	17
*	Oct 2021	183	29	14	22	7	2
	Nov 2021	184	17	4	5	3	3
	Dec 2021	218	17	4	7	4	4
	Jan 2022	260	17	4	6	4	3
	Feb 2022	228	16	4	6	3	3
	Mar 2022	237	17	5	8	4	3
	Winter 2022	1309	113	35	54	25	19
	Apr 2022	209	17	11	18	7	1
	May 2022	212	17	41	67	23	5
	Jun 2022	229	77	14	27	17	7
	Jul 2022	264	24	20	28	15	8
	Aug 2022	280	36	22	30	15	6
	Sep 2022	209	36	19	27	14	3
	Summer 2022	1403	208	128	198	92	29
	Oct 2022	175	23	18	26	9	5
	Nov 2022	181	21	4	6	4	5
	Dec 2022	217	29	4	6	4	5
	Jan 2023	259	29	4	6	4	4
	Feb 2023	227	26	4	6	3	4
	Mar 2023	237	17	5	7	5	4
	Winter 2023	1296	146	39	57	28	26
	Apr 2023	211	17	11	18	10	4
	May 2023	215	41	46	68	23	5
	Jun 2023	234	56	18	27	18	7
	Jul 2023	270	23	22	28	15	8
	Aug 2023	287	35	24	29	15	5
	Sep 2023	214	35	22	27	14	5
	Summer 2023	1217	172	120	170	81	30
	Oct 2023	241	24	21	26	9	5

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

OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS

November 2021 24-Month Study

Most Probable Inflow*

Flood Control Criteria - Beginning of Month Conditions



— BUREAU OF —
RECLAMATION

Date	Flaming Gorge	Blue Mesa	Navajo	Lake Powell	Upper Basin Total	Lake Mead	Total	Flaming Gorge	Blue Mesa	Navajo	Tot or Max Allow	Lake Powell	Lake Mead	BOM Space Total	Mead Sched Rel	Mead FC Rel	Sys Cont	
	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	MAF	
**** PREDICTED SPACE ****								**** CREDITABLE SPACE ****										
Nov 2021	941	621	814	17141	19517	18675	38192	941	621	814	2376	17141	18675	38192	3810	646	0	22.4
Dec 2021	953	615	816	17321	19705	18795	38500	953	615	816	2384	17321	18795	38500	4580	455	0	22.2
Jan 2022	980	613	841	17599	20033	18635	38668	980	613	841	2435	17599	18635	38668	5350	546	0	22.1
**** EFFECTIVE SPACE ****								**** CREDITABLE SPACE ****										
Jan 2022	980	613	841	17599	20033	18635	38668	388	216	342	946	17599	18635	37180	5350	546	0	22.1
Feb 2022	1,006	611	846	17999	20462	18416	38878	412	216	346	973	17999	18416	37388	1500	539	0	21.9
Mar 2022	1,025	608	845	18306	20785	18264	39049	428	214	345	987	18306	18264	37557	1500	902	0	21.6
Apr 2022	1,005	598	830	18590	21023	18415	39439	403	205	323	931	18590	18415	37936	1500	984	0	21.3
May 2022	962	592	798	18633	20986	18750	39736	354	197	269	820	18633	18750	38202	1500	954	0	21.9
Jun 2022	851	606	706	17904	20068	19094	39161	231	196	139	566	17904	19094	37564	1500	913	0	23.0
Jul 2022	758	443	653	16806	18661	19407	38067	127	12	31	170	16806	19407	36383	1500	806	0	22.9
**** CREDITABLE SPACE ****								**** CREDITABLE SPACE ****										
Aug 2022	649	427	681	16883	18640	19525	38165	649	427	681	1757	16883	19525	38165	1500	774	0	22.4
Sep 2022	701	451	712	17204	19068	19555	38623	701	451	712	1864	17204	19555	38623	2270	689	0	21.9
Oct 2022	772	485	722	17369	19349	19680	39028	772	485	722	1979	17369	19680	39028	3040	542	0	21.6
Nov 2022	794	520	704	17402	19419	19743	39162	794	520	704	2017	17402	19743	39162	3810	659	0	21.5
Dec 2022	808	503	691	17462	19465	19875	39339	808	503	691	2002	17462	19875	39339	4580	555	0	21.4
Jan 2023	865	491	692	17670	19718	19809	39527	865	491	692	2048	17670	19809	39527	5350	524	0	21.3
**** EFFECTIVE SPACE ****								**** CREDITABLE SPACE ****										
Jan 2023	865	491	692	17670	19718	19809	39527	451	316	475	1242	17670	19809	38722	5350	524	0	21.3
Feb 2023	914	482	693	17990	20079	19569	39647	499	307	476	1281	17990	19569	38840	1500	546	0	21.2
Mar 2023	954	472	686	18204	20316	19422	39738	536	297	468	1302	18204	19422	38928	1500	897	0	21.1
Apr 2023	925	452	635	18375	20386	19567	39953	502	277	411	1190	18375	19567	39132	1500	981	0	21.1
May 2023	870	412	567	18256	20106	19896	40002	440	238	320	998	18256	19896	39150	1500	956	0	22.1
Jun 2023	758	387	442	17169	18756	20239	38996	317	200	157	674	17169	20239	38082	1500	920	0	23.4
Jul 2023	550	221	371	15953	17095	20556	37651	93	11	30	133	15953	20556	36642	1500	815	0	23.2
**** CREDITABLE SPACE ****								**** CREDITABLE SPACE ****										
Aug 2023	475	203	401	16040	17120	20679	37799	475	203	401	1080	16040	20679	37799	1500	784	0	22.8
Sep 2023	527	218	435	16336	17516	20715	38231	527	218	435	1180	16336	20715	38231	2270	693	0	22.3
Oct 2023	600	248	442	16493	17783	20840	38623	600	248	442	1290	16493	20840	38623	3040	532	0	22.0

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