

**November 24-Month Study**  
**Date: November 14, 2018**

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

**Current Reservoir Status**

Reservoir	October Inflow (unregulated) (acre-feet)	Percent of Average (%)	November 12, Midnight Elevation (feet)	November 12, Midnight Reservoir Storage (acre-feet)
Fontenelle	41,900	86	6,490.29	229,000
Flaming Gorge	53,700	91	6,029.63	3,334,000
Blue Mesa	22,900	60	7,438.05	250,000
Navajo	22,500	48	6,018.01	893,000
Powell	350,900	68	3,587.70	10,614,000

**Expected Operations**

The operation of Lake Powell and Lake Mead in this November 2018 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 2018 Annual Operating Plan (AOP) and draft 2019 AOP. Pursuant to the Interim Guidelines, the August 2018 24-Month Study projections of the January 1, 2019, system storage and reservoir water surface elevations set the operational tier for the coordinated operation of Lake Powell and Lake Mead during 2019.

Consistent with Section 6.B of the Interim Guidelines, the Lake Powell operational tier for water year 2019 will be governed by the Upper Elevation Balancing Tier, with an initial water year release volume of 8.23 million acre-feet (maf) and the potential for an April adjustment to equalization or balancing releases in April 2019. This November 2018 24-Month Study indicates that, consistent with Section 6.B.4 of the Interim Guidelines, an April adjustment to balancing releases is projected to occur and the contents of Lake Powell and Lake Mead will be balanced by the end of the water year, but not more than 9.0 maf and not less than 8.23 maf shall be released from Lake Powell. Based on the most probable inflow forecast, this November 24-Month Study projects a balancing release of 8.86 maf in water year 2019.

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 years 2018 and 2019.

The 2019 operational tier determinations will be documented in the 2019 AOP, which is currently in development.

The Interim Guidelines are available for download at:

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

The 2018 AOP is available for download at:

<https://www.usbr.gov/lc/region/g4000/aop/AOP18.pdf>

The draft 2019 AOP is available for download at:

[https://www.usbr.gov/uc/water/rsvrs/ops/aop/AOP19\\_Third\\_Consultation\\_draft.pdf](https://www.usbr.gov/uc/water/rsvrs/ops/aop/AOP19_Third_Consultation_draft.pdf)

**Fontenelle Reservoir** – Fontenelle Reservoir is currently at elevation 6490.1 feet above sea level (feet), which amounts to 66 percent of live storage capacity. Inflows for the month of October totaled 41,900 acre-feet (af), or 86 percent of average. Average inflows are occurring and releases are being adjusted to maintain capacity in the reservoir. Releases are currently set at 1,000 cubic feet per second (cfs) (11/12/2018).

The Colorado Basin River Forecast Center has forecasted inflows that are at or above average. November, December, and January forecasted inflow volumes amount to 43,000 af (102 percent of average), 33,000 af (103 percent of average), and 32,000 af (106 percent of average), respectively.

The next Fontenelle Working Group meeting is scheduled for 10:00 a.m., April 24, 2019. The meeting will be held at the Seedskafee National Wildlife Refuge. 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** – Releases are currently set at 1,500 cfs with fluctuations for hydropower. Average daily releases will likely remain at 1,500 cfs through the end of November.

Unregulated Inflow into Flaming Gorge Reservoir during the month of October was 53,700 af, or 130 percent of average. The current reservoir elevation is 6029.6 feet (89 percent of live capacity) and decreasing.

The November final unregulated inflow forecast for the next three months projects near average conditions: November, December, and January forecasted inflow volumes at 48,000 af (94 percent of average), 34,000 af (98 percent of average), and 39,000 af (97 percent of average), respectively.

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 or Jed Parker at 801-524-3816.

Reclamation will be holding the Flaming Gorge Working Group meeting on Thursday, March 14, 2019 at 10:00 a.m. at the Uintah Conference Center, 313 E 200 S, Vernal, Utah.

**Aspinall Unit Reservoirs** – As of November 12, 2018 releases from Crystal Dam are approximately 330 cfs. Uncompahgre Valley Water Users Association has stopped diversions through the Gunnison Tunnel for the irrigation season. Occasional diversions through the tunnel are occurring to fill Fairview Reservoir as needed. Flows through the Black Canyon are approximately 310 cfs. There is currently about a 20 cfs loss to the Gunnison River between Crystal Dam and the Gunnison Tunnel Diversion. As of November 12, 2018, Blue Mesa Reservoir elevation is 7438.05 feet which corresponds to storage content of 249,932 af (30 percent of capacity).

The October unregulated inflow to Blue Mesa Reservoir was 22,900 af (60 percent of average). Unregulated Inflows to Blue Mesa for the next three months (November, December and January) are projected to be: 20,000 af (64 percent of average), 17,000 af (65 percent of average) and 15,000 af (63 percent of average), respectively. For water year 2019, the unregulated inflow volume is forecasted to be 722,900 af (75 percent of average) with 530,000 af (78 percent of average) of unregulated inflow occurring during the April through July period. The November 24-Month Study is reflective of this new forecast.

Conditions are clearly very dry. Blue Mesa Reservoir did not fill in water year 2018 and will most likely not fill in water year 2019 either. Current projections indicate Blue Mesa storage will continue to decrease from now till March of 2019 before rebounding during the spring runoff. Current projections show Blue Mesa will reach a low elevation for water year 2019 of about 7,437 feet in early June 2019 and a peak elevation for water year 2019 of about 7465 feet in early August 2019. The projected end of water year 2019 elevation of Blue Mesa is 7456.6 feet which corresponds to a live storage content of 356,620 acre-feet (43 percent of full capacity).

The Aspinall Unit Working 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 Working 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.

Meeting notes from past working Group meetings are posted on the Working Group webpage at:

<https://www.usbr.gov/uc/wcao/water/rsvrs/mtgs/amcurrnt.html>

The next meeting of the Aspinall Unit Working Group will be held on Thursday, January 17, 2019 at 1:00 p.m. at the Holiday Inn Express located in Montrose, Colorado.

**Navajo Reservoir** – The current (11/8/2018) daily average release rate from Navajo Dam is 320 cfs and the observed inflow to Navajo Reservoir is 147 cfs. The Navajo Indian Irrigation Project (NIIP) has shut down for the season. The NIIP diversion total for the year was 222,800 af. The reservoir elevation is 6018.1 feet which corresponds to a live storage of 0.895 maf (53 percent of live storage capacity). This elevation also corresponds to an active storage of 0.233 maf (22 percent of active storage capacity). The river flow measured at the San Juan River at Four Corners USGS gage is 650 cfs. River flow at the Animas River at Farmington USGS gage is at 310 cfs. Releases from Navajo Dam are made for the authorized purposes of the Navajo Unit, and pursuant to the 2006 Record of Decision, to attempt to maintain a target base flow through the endangered fish critical habitat reach of the San Juan River (Farmington to Lake Powell). The San Juan River Basin Recovery Implementation Program (SJRIP) recommends a target base flow of between 500 cfs and 1,000 cfs through the critical habitat area. The target base flow is calculated as the weekly average of gaged flows throughout the critical habitat area.

The preliminary modified-unregulated inflow into Navajo (inflow adjusted for upstream change in storage, reservoir evaporation and exportation from the basin) in October was 22,522 af (48 percent of average). This value is subject to change as additional data is collected and revised.

Forecasted modified-unregulated inflow to Navajo over the next three months (November, December, and January) are projected to be: 19,000 af (57 percent of average), 15,000 af (60 percent of average), and 14,000 af (64 percent of average), respectively.

Releases for the fall and winter will be made to maintain the minimum target baseflow in the critical habitat reach and will decrease as irrigation in the basin decreases. When conditions allow, the release will be reduced to as low as the minimum release of 250 cfs, so long as the target baseflow downstream is still met.

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 Navajo Public Operations Coordination Meeting is scheduled for Tuesday, January 29, 2019, at 1:00 p.m. at the Farmington Civic Center, Farmington, NM.

## **Glen Canyon Dam / Lake Powell**

### **Current Status**

The Department of the Interior completed a High Flow Experiment from Glen Canyon Dam in November 2018. High Flow Experiments (HFE) below Glen Canyon Dam are driven by weather, sediment inputs, and other resource conditions, in accordance with the Long-Term Experimental and Management Plan (LTEMP). The HFE began on November 5, 2018, for a duration of 60 hours with flows surrounding the HFE fluctuating between 6,500 and 9,000 cfs during the evening and daylight hours for hydropower.

The April to July 2018 unregulated inflow to Lake Powell was 2.6 maf (36 percent of average). The unregulated inflow in October was 351 thousand acre-feet (kaf) (69 percent of average). October precipitation in the Upper Colorado Basin was 135 percent of average, but the extremely dry soil conditions decreased the amount of observed runoff. The release volume from Glen Canyon Dam in October was 625 kaf. The end of October elevation and storage of Lake Powell were 3,590.46 feet (110 feet from full pool) 10.86 maf (45 percent of full capacity).

### **Current Operations**

The operating tier for water year 2019 was established in August 2018 as the Upper Elevation Balancing Tier. As described in the Interim Guidelines, under balancing, the contents of Lake Powell and Lake Mead are to be balanced by the end of the water year, but not more than 9.0 maf and not less than 8.23 maf is to be released from Lake Powell. Under this Tier the initial annual water year release volume is 8.23 maf but there is potential for an April 2019 adjustment to equalization or balancing releases. Based on the current forecast, an April adjustment to balancing releases is projected and Lake Powell is currently projected to release 8.85 maf in water year 2019. This projection will be updated each month throughout the water year.

In November, the release volume will be approximately 657 kaf, with fluctuations anticipated between about 6,000 cfs in the nighttime to about 9,000 cfs in the daytime and consistent with the Glen Canyon Dam, Record of Decision on LTEMP (dated December, 2016). The anticipated release volume for December is 740 kaf.

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 1,200 cfs above or below the hourly scheduled release rate. Under normal 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 power system emergencies. Depending on the severity of the

system emergency, the response from Glen Canyon Dam can be significant and 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 28 mw (approximately 830 cfs) of generation capacity in reserve to respond to system emergencies even when generation rates are already high. System emergencies occur fairly 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 2019 unregulated inflow to Lake Powell, issued on November 1, 2018, by the Colorado Basin River Forecast Center, projects that the most probable (median) unregulated inflow volume next year will be 7.5 maf (69 percent of average). There is significant uncertainty regarding next season's snow pack development and resulting runoff into Lake Powell. The forecast ranges from a minimum probable of 4.6 maf (42 percent of average) to a maximum probable of 15.4 maf (142 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, the November 24-Month Study projects the Lake Powell elevation will end water year 2019 near 3,582.59 feet with approximately 10.16 maf in storage (39 percent of capacity). Note that projections of elevation and storage for water year 2019 have significant uncertainty at this point in the season. Projections of end of water year 2019 elevation and storage using the minimum and maximum probable inflow forecast from October 2018 are 3,556 feet (8.027 maf, 33 percent of capacity) and 3,636 feet (15.54 maf, 64 percent of capacity), respectively. Under these scenarios, there is a 10 percent chance that inflows will be higher, resulting in higher elevation and storage, and 10 percent chance that inflows will be lower, resulting in lower elevation and storage. The annual release volume from Lake Powell during water year 2019 is projected to be 8.85 maf under the November most probable scenario, and 9.0 maf under the October maximum probable inflow scenarios and 8.23 maf under the October minimum probable inflow scenario.

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

The Upper Colorado River Basin regularly experiences significant year to year hydrologic variability. During the 19-year period 2000 to 2018, 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 4 out of the past 19 years. The period 2000-2018 is the lowest 19-year period since the closure of Glen Canyon Dam in 1963, with an average unregulated inflow of 8.54 maf, or 79 percent of the 30-year average (1981-2010). (For comparison, the 1981-2010 total water year average is 10.83 maf.) The unregulated inflow during the 2000-2018 period has ranged from a low of 2.64 maf (24 percent of average) in water year 2002 to a high of 15.97 maf (147 percent of average) in water year 2011. In water year 2018 unregulated inflow volume to Lake Powell was 4.6 maf (43 percent of average), the third driest year on record above 2002

and 1977. Under the current most probable forecast, the total water year 2019 unregulated inflow to Lake Powell is projected to be 7.6 maf (70 percent of average).

At the beginning of water year 2019, total system storage in the Colorado River Basin was 28.0 maf (47 percent of 59.6 maf total system capacity). This is a decrease of 4.9 maf over the total storage at the beginning of water year 2018 when total system storage was 32.9 maf (55 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 a low of 50 percent of capacity at the beginning of water year 2005. One wet year can significantly increase total system reservoir storage, just as persistent dry years can draw down the system storage. Based on current inflow forecasts, the current projected end of water year total Colorado Basin reservoir storage for water year 2019 is approximately 25.93 maf (43 percent of total system capacity). The actual end of water year 2019 system storage may vary from this projection, primarily due to uncertainty regarding this season's runoff and reservoir inflow.



# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*

### Fontenelle Reservoir



	Date	Regulated Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	Power Release (1000 Ac-Ft)	Bypass Release (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)
*	Nov 2017	62	1	78	0	78	6491.65	238
H	Dec 2017	46	1	72	8	80	6486.39	204
I	Jan 2018	42	1	79	1	80	6479.83	165
S	Feb 2018	38	0	72	0	72	6472.86	131
T	Mar 2018	58	0	16	56	71	6469.78	117
O	Apr 2018	101	1	83	4	87	6472.76	130
R	May 2018	354	2	100	123	223	6494.84	260
I	Jun 2018	404	2	101	269	370	6499.18	292
C	Jul 2018	138	3	92	8	100	6503.79	327
A	Aug 2018	50	2	75	1	76	6500.10	299
L	Sep 2018	30	2	7	58	65	6495.11	262
	<b>WY 2018</b>	<b>1397</b>	<b>15</b>	<b>856</b>	<b>528</b>	<b>1382</b>		
*	Oct 2018	42	1	45	20	65	6491.62	238
	Nov 2018	43	1	60	0	60	6488.96	222
	Dec 2018	33	1	61	0	61	6484.45	193
	Jan 2019	32	1	61	0	61	6479.19	162
	Feb 2019	30	0	56	0	56	6473.90	136
	Mar 2019	48	0	63	0	63	6470.40	121
	Apr 2019	75	1	69	0	69	6471.68	126
	May 2019	125	1	77	0	77	6481.15	173
	Jun 2019	255	2	103	19	122	6500.68	304
	Jul 2019	165	3	101	31	132	6504.57	334
	Aug 2019	67	2	69	0	69	6504.01	330
	Sep 2019	42	2	36	29	65	6500.73	304
	<b>WY 2019</b>	<b>957</b>	<b>15</b>	<b>801</b>	<b>100</b>	<b>901</b>		
	Oct 2019	46	1	69	0	69	6497.45	280
	Nov 2019	41	1	67	0	67	6493.71	253
	Dec 2019	32	1	69	0	69	6488.04	215
	Jan 2020	30	1	69	0	69	6481.63	176
	Feb 2020	28	1	65	0	65	6474.31	138
	Mar 2020	53	0	74	0	74	6469.43	117
	Apr 2020	85	1	77	0	77	6471.18	124
	May 2020	164	1	99	18	117	6480.54	170
	Jun 2020	299	2	102	70	173	6499.40	294
	Jul 2020	178	3	102	40	141	6503.75	328
	Aug 2020	77	2	98	0	98	6500.63	304
	Sep 2020	46	2	20	75	95	6493.61	253
	<b>WY 2020</b>	<b>1078</b>	<b>15</b>	<b>912</b>	<b>203</b>	<b>1115</b>		
	Oct 2020	49	1	98	0	98	6485.94	202

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*

### Flaming Gorge Reservoir



	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 2017	82	98	4	139	0	139	138	6032.07	3430	166
H	Dec 2017	52	86	2	174	0	174	135	6029.85	3343	197
I	Jan 2018	52	90	2	175	0	175	131	6027.65	3259	208
S	Feb 2018	57	91	2	155	1	157	129	6025.91	3194	197
T	Mar 2018	86	99	3	106	0	106	128	6025.65	3184	178
O	Apr 2018	121	108	5	101	0	101	128	6025.69	3186	277
R	May 2018	422	290	8	163	6	169	133	6028.57	3294	572
I	Jun 2018	435	401	11	125	0	125	143	6035.09	3550	278
C	Jul 2018	140	102	14	120	0	120	142	6034.33	3519	141
A	Aug 2018	42	68	13	124	0	124	139	6032.67	3453	142
L	Sep 2018	17	52	11	119	0	119	136	6030.75	3378	132
	<b>WY 2018</b>	<b>1594</b>	<b>1580</b>	<b>82</b>	<b>1608</b>	<b>7</b>	<b>1616</b>				<b>2638</b>
*	Oct 2018	54	77	7	99	0	99	135	6030.03	3350	131
	Nov 2018	48	65	4	89	0	89	134	6029.32	3323	112
	Dec 2018	34	62	2	123	0	123	131	6027.75	3263	146
	Jan 2019	39	68	2	123	0	123	129	6026.32	3209	143
	Feb 2019	45	71	2	111	0	111	128	6025.21	3168	130
	Mar 2019	95	110	3	92	0	92	128	6025.60	3182	152
	Apr 2019	125	119	5	89	0	89	129	6026.24	3206	239
	May 2019	160	112	8	111	0	111	129	6026.07	3200	551
	Jun 2019	290	157	10	167	0	167	128	6025.55	3181	592
	Jul 2019	185	152	13	85	0	85	130	6026.92	3232	153
	Aug 2019	76	78	12	105	0	105	129	6025.93	3195	123
	Sep 2019	48	71	11	101	0	101	127	6024.88	3156	115
	<b>WY 2019</b>	<b>1199</b>	<b>1142</b>	<b>79</b>	<b>1295</b>	<b>0</b>	<b>1295</b>				<b>2588</b>
	Oct 2019	54	77	7	61	0	61	127	6025.10	3164	88
	Nov 2019	49	75	3	60	0	60	128	6025.42	3176	88
	Dec 2019	35	72	2	105	0	105	126	6024.52	3143	130
	Jan 2020	40	79	2	105	0	105	125	6023.82	3117	130
	Feb 2020	45	82	2	98	0	98	125	6023.33	3099	126
	Mar 2020	102	124	3	68	0	68	127	6024.72	3150	144
	Apr 2020	134	125	5	65	0	65	129	6026.15	3203	281
	May 2020	245	198	8	213	0	213	128	6025.57	3181	745
	Jun 2020	390	263	10	119	0	119	133	6028.98	3310	539
	Jul 2020	210	174	14	123	0	123	135	6029.92	3346	223
	Aug 2020	89	111	13	123	0	123	134	6029.29	3322	148
	Sep 2020	55	104	11	119	0	119	133	6028.64	3297	138
	<b>WY 2020</b>	<b>1447</b>	<b>1484</b>	<b>79</b>	<b>1258</b>	<b>0</b>	<b>1258</b>				<b>2780</b>
	Oct 2020	59	109	7	123	0	123	132	6028.10	3276	155

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 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)
*	Nov 2017	6	6	9315.09	78
H	Dec 2017	4	6	9313.84	76
I	Jan 2018	4	6	9312.64	74
S	Feb 2018	4	6	9311.50	72
T	Mar 2018	5	6	9310.51	71
O	Apr 2018	8	7	9311.18	72
R	May 2018	24	12	9318.33	84
I	Jun 2018	13	15	9317.29	82
C	Jul 2018	5	14	9311.71	73
A	Aug 2018	3	13	9305.51	63
L	Sep 2018	3	8	9301.71	58
<b>WY 2018</b>		<b>88</b>	<b>108</b>		
*	Oct 2018	5	3	9302.60	59
	Nov 2018	4	3	9302.95	59
	Dec 2018	3	3	9302.88	59
	Jan 2019	3	3	9302.81	59
	Feb 2019	2	3	9302.25	58
	Mar 2019	3	3	9302.18	58
	Apr 2019	5	3	9303.58	60
	May 2019	21	10	9310.79	71
	Jun 2019	34	15	9321.75	90
	Jul 2019	14	18	9319.57	86
	Aug 2019	7	15	9315.02	78
	Sep 2019	6	13	9310.79	71
<b>WY 2019</b>		<b>106</b>	<b>92</b>		
	Oct 2019	6	6	9310.69	71
	Nov 2019	5	5	9310.53	71
	Dec 2019	5	5	9310.20	70
	Jan 2020	4	5	9309.66	69
	Feb 2020	4	5	9308.97	68
	Mar 2020	4	8	9306.65	65
	Apr 2020	9	8	9307.15	65
	May 2020	28	30	9306.02	64
	Jun 2020	42	30	9313.42	75
	Jul 2020	20	10	9319.26	86
	Aug 2020	10	8	9320.53	88
	Sep 2020	7	8	9320.18	87
<b>WY 2020</b>		<b>144</b>	<b>128</b>		
	Oct 2020	7	6	9320.54	88

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

### Most Probable Inflow\* Blue Mesa Reservoir



	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 2017	32	32	0	40	0	40	7499.68	659
H	Dec 2017	25	27	0	93	0	93	7491.44	593
I	Jan 2018	20	22	0	60	0	60	7486.51	554
S	Feb 2018	23	25	0	32	0	32	7485.54	547
T	Mar 2018	28	29	0	43	0	43	7483.73	534
O	Apr 2018	48	47	1	82	0	82	7478.94	498
R	May 2018	112	100	1	85	0	85	7480.90	513
I	Jun 2018	56	57	1	98	0	98	7475.06	471
C	Jul 2018	21	31	1	101	0	101	7464.43	399
A	Aug 2018	19	28	1	93	0	93	7453.77	334
L	Sep 2018	12	17	1	30	39	68	7444.44	282
	<b>WY 2018</b>	<b>433</b>	<b>453</b>	<b>7</b>	<b>856</b>	<b>39</b>	<b>895</b>		
*	Oct 2018	23	22	0	46	11	56	7437.59	248
	Nov 2018	20	20	0	21	0	21	7437.22	246
	Dec 2018	17	17	0	17	0	17	7437.16	246
	Jan 2019	15	15	0	15	0	15	7437.10	245
	Feb 2019	13	14	0	15	0	15	7436.75	244
	Mar 2019	24	24	0	18	0	18	7438.03	250
	Apr 2019	57	55	0	41	0	41	7440.85	264
	May 2019	165	154	1	158	0	158	7439.82	259
	Jun 2019	220	201	1	81	0	81	7461.00	377
	Jul 2019	88	92	1	68	0	68	7464.56	400
	Aug 2019	46	54	1	75	0	75	7461.04	378
	Sep 2019	35	42	1	68	0	68	7456.60	351
	<b>WY 2019</b>	<b>723</b>	<b>709</b>	<b>6</b>	<b>625</b>	<b>11</b>	<b>635</b>		
	Oct 2019	36	36	0	42	0	42	7455.52	344
	Nov 2019	30	31	0	13	0	13	7458.35	361
	Dec 2019	26	26	0	14	0	14	7460.40	374
	Jan 2020	24	25	0	13	0	13	7462.27	385
	Feb 2020	22	23	0	13	0	13	7463.96	396
	Mar 2020	36	40	0	0	14	14	7467.80	421
	Apr 2020	77	76	1	0	36	36	7473.65	461
	May 2020	221	223	1	6	189	195	7477.40	487
	Jun 2020	261	249	1	24	0	24	7505.98	711
	Jul 2020	117	107	2	62	0	62	7510.97	754
	Aug 2020	63	61	1	71	0	71	7509.65	743
	Sep 2020	38	39	1	66	0	66	7506.40	715
	<b>WY 2020</b>	<b>952</b>	<b>936</b>	<b>8</b>	<b>325</b>	<b>240</b>	<b>564</b>		
	Oct 2020	38	38	1	56	0	56	7504.17	696

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*

### Morrow Point Reservoir



	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 2017	34	40	1	41	42	0	42	7152.45	111
H	Dec 2017	26	93	1	94	94	0	94	7152.45	111
I	Jan 2018	22	60	2	62	62	0	63	7150.65	110
S	Feb 2018	24	32	1	33	34	0	34	7149.19	108
T	Mar 2018	29	43	1	44	49	0	49	7143.05	104
O	Apr 2018	54	82	6	87	79	0	79	7154.30	112
R	May 2018	121	85	8	94	94	0	94	7153.76	112
I	Jun 2018	57	98	2	99	99	0	99	7154.16	112
C	Jul 2018	22	101	1	102	101	0	101	7155.49	113
A	Aug 2018	19	93	0	93	94	0	94	7153.96	112
L	Sep 2018	14	68	2	70	84	0	84	7135.77	98
	<b>WY 2018</b>	<b>460</b>	<b>895</b>	<b>27</b>	<b>922</b>	<b>935</b>	<b>0</b>	<b>937</b>		
*	Oct 2018	24	56	1	57	56	0	56	7136.92	99
	Nov 2018	21	21	1	22	9	0	9	7153.73	112
	Dec 2018	18	17	1	18	18	0	18	7153.73	112
	Jan 2019	17	15	2	17	17	0	17	7153.73	112
	Feb 2019	14	15	1	16	16	0	16	7153.73	112
	Mar 2019	27	18	3	21	21	0	21	7153.73	112
	Apr 2019	65	41	8	49	49	0	49	7153.73	112
	May 2019	178	158	13	171	171	0	171	7153.73	112
	Jun 2019	235	81	15	96	96	0	96	7153.73	112
	Jul 2019	92	68	4	72	72	0	72	7153.73	112
	Aug 2019	47	75	1	76	76	0	76	7153.73	112
	Sep 2019	36	68	1	69	69	0	69	7153.73	112
	<b>WY 2019</b>	<b>774</b>	<b>635</b>	<b>51</b>	<b>686</b>	<b>673</b>	<b>0</b>	<b>673</b>		
	Oct 2019	38	42	1	44	44	0	44	7153.73	112
	Nov 2019	32	13	2	15	15	0	15	7153.73	112
	Dec 2019	28	14	2	16	16	0	16	7153.73	112
	Jan 2020	27	13	2	16	16	0	16	7153.73	112
	Feb 2020	25	13	3	15	15	0	15	7153.73	112
	Mar 2020	40	14	4	18	18	0	18	7153.73	112
	Apr 2020	88	36	11	47	47	0	47	7153.73	112
	May 2020	247	195	26	221	221	0	221	7153.73	112
	Jun 2020	281	24	20	44	44	0	44	7153.73	112
	Jul 2020	123	62	6	69	69	0	69	7153.73	112
	Aug 2020	67	71	3	75	75	0	75	7153.73	112
	Sep 2020	41	66	3	68	68	0	68	7153.73	112
	<b>WY 2020</b>	<b>1036</b>	<b>564</b>	<b>84</b>	<b>648</b>	<b>648</b>	<b>0</b>	<b>648</b>		
	Oct 2020	41	56	3	58	58	0	58	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 2018 24-Month Study

Most Probable Inflow\*  
Crystal Reservoir



		Unreg Inflow	Morrow Release	Side Inflow	Total Inflow	Power Release	Bypass Release	Total Release	Reservoir Elev End of Month	Live Storage	Tunnel Flow	Below Tunnel Flow
	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 2017	38	42	4	46	46	0	46	6749.89	16	1	46
H	Dec 2017	29	94	3	97	97	0	97	6749.23	16	1	98
I	Jan 2018	25	63	3	66	62	4	66	6747.99	16	1	65
S	Feb 2018	27	34	3	37	16	20	36	6750.06	16	0	34
T	Mar 2018	33	49	4	52	53	0	53	6747.97	16	13	38
O	Apr 2018	60	79	6	84	84	0	84	6749.35	16	53	28
R	May 2018	129	94	9	102	102	0	102	6749.41	16	62	39
I	Jun 2018	61	99	3	102	102	0	102	6750.48	16	63	42
C	Jul 2018	24	101	2	103	103	0	103	6750.59	16	64	41
A	Aug 2018	21	94	2	96	98	0	98	6744.83	15	65	36
L	Sep 2018	15	84	1	85	87	0	87	6737.22	13	59	33
	<b>WY 2018</b>	<b>505</b>	<b>937</b>	<b>45</b>	<b>982</b>	<b>959</b>	<b>26</b>	<b>985</b>			<b>438</b>	<b>553</b>
*	Oct 2018	27	56	3	59	55	0	55	6751.87	17	33	24
	Nov 2018	24	9	3	12	12	0	12	6753.04	17	0	12
	Dec 2018	20	18	2	20	20	0	20	6753.04	17	0	20
	Jan 2019	20	17	3	20	20	0	20	6753.04	17	0	20
	Feb 2019	16	16	2	18	18	0	18	6753.04	17	0	18
	Mar 2019	31	21	4	25	25	0	25	6753.04	17	5	20
	Apr 2019	73	49	8	57	57	0	57	6753.04	17	42	15
	May 2019	200	171	22	193	134	59	193	6753.04	17	62	131
	Jun 2019	270	96	35	131	130	1	131	6753.04	17	61	70
	Jul 2019	102	72	10	82	82	0	82	6753.04	17	65	17
	Aug 2019	53	76	6	82	82	0	82	6753.04	17	65	17
	Sep 2019	41	69	5	74	74	0	74	6753.04	17	55	19
	<b>WY 2019</b>	<b>877</b>	<b>673</b>	<b>103</b>	<b>776</b>	<b>710</b>	<b>61</b>	<b>771</b>			<b>388</b>	<b>386</b>
	Oct 2019	43	44	5	49	49	0	49	6753.04	17	30	19
	Nov 2019	37	15	4	20	20	0	20	6753.04	17	0	20
	Dec 2019	32	16	5	20	20	0	20	6753.04	17	0	20
	Jan 2020	31	16	5	20	20	0	20	6753.04	17	0	20
	Feb 2020	29	15	4	19	0	19	19	6753.04	17	0	19
	Mar 2020	46	18	6	25	25	0	25	6753.04	17	5	20
	Apr 2020	101	47	12	60	60	0	60	6753.04	17	42	18
	May 2020	281	221	34	256	134	121	256	6753.04	17	62	194
	Jun 2020	315	44	34	78	78	0	78	6753.04	17	61	17
	Jul 2020	138	69	14	83	83	0	83	6753.04	17	65	18
	Aug 2020	75	75	8	83	83	0	83	6753.04	17	65	18
	Sep 2020	47	68	6	74	74	0	74	6753.04	17	55	19
	<b>WY 2020</b>	<b>1175</b>	<b>648</b>	<b>139</b>	<b>786</b>	<b>646</b>	<b>140</b>	<b>786</b>			<b>385</b>	<b>401</b>
	Oct 2020	47	58	6	65	65	0	65	6753.04	17	30	35

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*  
Vallecito Reservoir



Date	Regulated Inflow (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Live Storage (1000 Ac-Ft)
* Nov 2017	5	2	7639.49	63
H Dec 2017	3	1	7640.27	65
I Jan 2018	3	0	7641.42	67
S Feb 2018	3	0	7642.57	70
T Mar 2018	4	0	7644.11	73
O Apr 2018	15	3	7649.29	85
R May 2018	30	31	7648.91	84
I Jun 2018	14	35	7639.22	63
C Jul 2018	8	35	7624.15	35
A Aug 2018	5	19	7613.87	22
L Sep 2018	3	4	7613.06	21
<b>WY 2018</b>	<b>102</b>	<b>153</b>		
* Oct 2018	9	3	7617.56	26
Nov 2018	6	1	7621.10	31
Dec 2018	4	0	7623.24	34
Jan 2019	3	0	7624.93	36
Feb 2019	2	0	7625.94	38
Mar 2019	4	0	7628.05	41
Apr 2019	15	0	7635.87	56
May 2019	45	31	7642.55	70
Jun 2019	61	43	7650.24	88
Jul 2019	25	42	7642.87	70
Aug 2019	16	38	7631.96	48
Sep 2019	14	30	7622.38	32
<b>WY 2019</b>	<b>203</b>	<b>189</b>		
Oct 2019	14	17	7619.68	29
Nov 2019	8	2	7623.66	34
Dec 2019	6	2	7626.50	39
Jan 2020	5	2	7628.58	42
Feb 2020	5	2	7630.26	45
Mar 2020	9	2	7633.84	52
Apr 2020	23	2	7644.03	73
May 2020	71	31	7660.29	113
Jun 2020	70	58	7664.83	125
Jul 2020	29	41	7659.94	112
Aug 2020	20	38	7652.71	94
Sep 2020	17	29	7647.67	81
<b>WY 2020</b>	<b>278</b>	<b>226</b>		
Oct 2020	16	16	7647.23	80

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*

### Navajo Reservoir



	Mod Unreg	Azetea	Reg	Evap	NIIP	Total	Reservoir Elev	Live	Farmington
	Inflow	Tunnel Div	Inflow	Losses	Diversion	Release	End of Month	Storage	Flow
Date	(1000 Ac-Ft)	(Ft)	(1000 Ac-Ft)	(1000 Ac-Ft)					
* Nov 2017	19	0	16	1	0	26	6055.04	1286	41
H Dec 2017	11	0	9	1	0	25	6053.69	1270	40
I Jan 2018	12	0	9	1	0	23	6052.47	1255	40
S Feb 2018	13	0	11	1	1	17	6051.73	1246	33
T Mar 2018	24	2	19	2	6	21	6050.92	1236	30
O Apr 2018	70	13	46	2	20	38	6049.73	1222	42
R May 2018	88	16	71	3	36	32	6049.80	1223	69
I Jun 2018	6	3	24	4	42	42	6044.23	1159	49
C Jul 2018	-9	0	18	4	42	51	6036.94	1080	53
A Aug 2018	-7	0	7	3	42	51	6028.27	991	48
L Sep 2018	2	0	3	2	27	46	6020.80	919	42
<b>WY 2018</b>	<b>268</b>	<b>36</b>	<b>283</b>	<b>24</b>	<b>224</b>	<b>405</b>			<b>540</b>
* Oct 2018	23	1	16	1	7	31	6018.35	897	40
Nov 2018	19	1	13	1	0	19	6017.65	890	29
Dec 2018	15	0	12	0	0	19	6016.81	882	27
Jan 2019	14	0	11	0	0	21	6015.75	873	28
Feb 2019	17	0	15	1	0	16	6015.57	871	22
Mar 2019	46	0	42	1	5	15	6017.83	892	27
Apr 2019	95	2	79	2	21	15	6022.25	933	45
May 2019	185	9	161	3	36	22	6032.55	1034	122
Jun 2019	178	23	137	3	52	21	6038.37	1095	137
Jul 2019	42	22	37	4	57	22	6034.08	1050	71
Aug 2019	32	1	52	3	48	25	6031.79	1027	54
Sep 2019	32	1	47	2	26	21	6031.49	1024	44
<b>WY 2019</b>	<b>698</b>	<b>60</b>	<b>623</b>	<b>21</b>	<b>251</b>	<b>246</b>			<b>645</b>
Oct 2019	39	2	40	1	10	22	6032.25	1031	44
Nov 2019	31	1	24	1	0	21	6032.48	1034	37
Dec 2019	25	0	20	1	0	22	6032.32	1032	37
Jan 2020	22	0	18	1	0	22	6031.96	1028	35
Feb 2020	30	0	27	1	0	20	6032.58	1035	33
Mar 2020	92	0	85	1	6	22	6038.02	1092	44
Apr 2020	170	9	140	2	22	21	6046.69	1187	73
May 2020	277	21	216	3	36	22	6059.56	1342	168
Jun 2020	224	37	174	4	53	28	6066.42	1432	179
Jul 2020	66	29	50	5	57	31	6063.21	1389	98
Aug 2020	45	5	58	4	48	31	6061.36	1365	69
Sep 2020	43	2	53	3	26	30	6060.94	1360	62
<b>WY 2020</b>	<b>1064</b>	<b>105</b>	<b>907</b>	<b>26</b>	<b>257</b>	<b>288</b>			<b>879</b>
Oct 2020	47	2	46	2	0	31	6061.98	1373	59

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*

### Lake Powell



	Date	Unreg Inflow (1000 Ac-Ft)	Regulated Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	PowerPlant Release (1000 Ac-Ft)	Bypass Release (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	Bank Storage (1000 Ac-Ft)	EOM Storage (1000 Ac-Ft)	Lees Ferry Gage (1000 Ac-Ft)
*	Nov 2017	387	454	37	630	0	630	3625.29	5200	14332	619
H	Dec 2017	299	483	29	740	0	740	3622.85	5179	14068	733
I	Jan 2018	262	442	9	860	0	860	3619.14	5147	13672	861
S	Feb 2018	269	387	10	730	0	730	3616.02	5121	13346	750
T	Mar 2018	332	395	16	800	0	800	3612.23	5090	12956	835
O	Apr 2018	382	419	25	705	0	705	3609.39	5067	12669	738
R	May 2018	1214	968	29	705	0	705	3611.54	5085	12886	730
I	Jun 2018	883	635	45	760	0	760	3609.98	5072	12728	781
C	Jul 2018	123	252	53	860	0	860	3603.80	5023	12116	877
A	Aug 2018	11	260	50	900	0	900	3597.12	4972	11477	911
L	Sep 2018	1	230	45	670	0	670	3592.28	4936	11028	690
	<b>WY 2018</b>	<b>4612</b>	<b>5459</b>	<b>386</b>	<b>9000</b>	<b>0</b>	<b>9000</b>				<b>9158</b>
*	Oct 2018	351	477	30	625	0	625	3590.46	4923	10862	650
	Nov 2018	320	350	29	657	0	657	3587.00	4898	10551	657
	Dec 2018	250	343	23	740	0	740	3582.59	4867	10163	745
	Jan 2019	235	326	7	860	0	860	3576.74	4827	9662	871
	Feb 2019	270	338	7	740	0	740	3572.17	4796	9284	744
	Mar 2019	445	411	11	765	0	765	3567.98	4769	8945	770
	Apr 2019	690	580	18	670	0	670	3566.73	4761	8845	678
	May 2019	1400	1226	21	670	0	670	3572.86	4801	9340	676
	Jun 2019	2070	1726	36	740	0	740	3583.24	4871	10220	748
	Jul 2019	760	699	44	835	0	835	3581.32	4858	10053	854
	Aug 2019	370	470	43	900	0	900	3576.17	4823	9615	918
	Sep 2019	340	443	39	650	0	650	3573.43	4805	9387	661
	<b>WY 2019</b>	<b>7501</b>	<b>7388</b>	<b>308</b>	<b>8853</b>	<b>0</b>	<b>8853</b>				<b>8972</b>
	Oct 2019	455	463	27	480	0	480	3572.94	4801	9347	486
	Nov 2019	447	431	26	500	0	500	3571.88	4794	9260	500
	Dec 2019	363	417	20	600	0	600	3569.55	4779	9071	605
	Jan 2020	361	414	6	720	0	720	3565.93	4756	8782	731
	Feb 2020	393	426	6	640	0	640	3563.33	4740	8579	644
	Mar 2020	665	544	11	675	0	675	3561.63	4729	8448	680
	Apr 2020	1056	827	17	600	0	600	3564.14	4745	8642	608
	May 2020	2343	2087	22	600	0	600	3580.69	4854	9998	606
	Jun 2020	2666	2052	38	630	0	630	3595.00	4956	11279	638
	Jul 2020	1091	999	49	710	0	710	3597.38	4974	11502	729
	Aug 2020	500	580	49	760	0	760	3595.12	4957	11291	778
	Sep 2020	408	514	45	565	0	565	3594.17	4950	11202	576
	<b>WY 2020</b>	<b>10747</b>	<b>9756</b>	<b>315</b>	<b>7480</b>	<b>0</b>	<b>7480</b>				<b>7580</b>
	Oct 2020	512	579	31	640	0	640	3593.25	4943	11117	646

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*

### Hoover Dam - Lake Mead



Date	Glen Release (1000 Ac-Ft)	Side Inflow Glen to Hoover (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Total Release (1000 CFS)	SNWP Use (1000 Ac-Ft)	Downstream Requirements (1000 Ac-Ft)	Bank Storage (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)
* Nov 2017	630	40	42	731	12.3	16	731	656	1080.95	10090
H Dec 2017	740	43	37	594	9.7	12	593	664	1082.52	10221
I Jan 2018	860	78	30	449	7.3	10	448	692	1087.50	10642
S Feb 2018	730	60	28	687	12.4	10	693	696	1088.21	10703
T Mar 2018	800	70	32	833	13.5	14	832	695	1088.11	10694
O Apr 2018	705	43	39	1015	17.1	21	1015	675	1084.49	10387
R May 2018	705	21	44	1055	17.1	27	1054	651	1080.00	10011
I Jun 2018	760	27	53	986	16.6	28	985	634	1076.81	9748
C Jul 2018	860	106	65	820	13.3	27	819	637	1077.43	9799
A Aug 2018	900	74	70	749	12.2	28	748	645	1078.88	9918
L Sep 2018	670	86	58	725	12.2	26	724	642	1078.29	9870
<b>WY 2018</b>	<b>9000</b>	<b>692</b>	<b>541</b>	<b>9240</b>		<b>243</b>	<b>9237</b>			
* Oct 2018	625	101	42	641	10.4	23	634	643	1078.52	9889
Nov 2018	657	61	42	693	11.6	24	693	640	1078.05	9850
Dec 2018	740	50	36	454	7.4	17	454	657	1081.25	10115
Jan 2019	860	78	30	618	10.0	12	618	674	1084.36	10375
Feb 2019	740	93	28	684	12.3	14	684	681	1085.55	10476
Mar 2019	765	56	31	1054	17.1	21	1054	664	1082.37	10208
Apr 2019	670	48	38	1058	17.8	23	1058	639	1077.82	9831
May 2019	670	31	43	966	15.7	27	966	619	1073.96	9516
Jun 2019	740	12	51	907	15.2	33	907	604	1071.16	9292
Jul 2019	835	81	64	825	13.4	36	825	603	1071.06	9284
Aug 2019	900	112	68	739	12.0	34	739	614	1073.06	9444
Sep 2019	650	105	56	733	12.3	27	733	610	1072.35	9387
<b>WY 2019</b>	<b>8853</b>	<b>828</b>	<b>530</b>	<b>9372</b>		<b>292</b>	<b>9365</b>			
Oct 2019	480	69	41	509	8.3	28	509	608	1072.00	9359
Nov 2019	500	61	41	669	11.2	21	669	598	1070.01	9200
Dec 2019	600	50	35	593	9.6	14	593	598	1070.10	9208
Jan 2020	720	78	29	607	9.9	14	607	608	1071.85	9347
Feb 2020	640	93	26	663	11.5	17	663	609	1072.16	9372
Mar 2020	675	56	29	988	16.1	22	988	590	1068.53	9083
Apr 2020	600	48	36	997	16.8	25	997	565	1063.59	8697
May 2020	600	31	40	917	14.9	31	917	544	1059.20	8362
Jun 2020	630	12	48	929	15.6	31	929	521	1054.60	8019
Jul 2020	710	81	59	813	13.2	31	813	514	1053.18	7914
Aug 2020	760	112	62	773	12.6	28	773	515	1053.29	7922
Sep 2020	565	105	51	701	11.8	25	701	508	1051.92	7822
<b>WY 2020</b>	<b>7480</b>	<b>796</b>	<b>498</b>	<b>9160</b>		<b>285</b>	<b>9160</b>			
Oct 2020	640	69	37	473	7.7	25	473	519	1054.14	7985

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*

### Davis Dam - Lake Mohave



	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 2017	731	-18	11	595	0	595	10.0	640.07	1619
H	Dec 2017	594	-16	9	552	0	552	9.0	640.68	1636
I	Jan 2018	449	2	10	437	0	437	7.1	640.86	1641
S	Feb 2018	687	-4	10	611	0	611	11.0	643.18	1704
T	Mar 2018	833	-1	13	836	0	836	13.6	642.57	1687
O	Apr 2018	1015	-3	17	1001	0	1001	16.8	642.40	1682
R	May 2018	1055	-11	22	1001	0	1001	16.3	643.17	1703
I	Jun 2018	986	-21	26	909	0	909	15.3	644.29	1734
C	Jul 2018	820	-6	26	827	0	827	13.4	642.91	1696
A	Aug 2018	749	-13	23	730	0	730	11.9	642.29	1679
L	Sep 2018	725	-11	18	814	0	814	13.7	637.87	1561
	<b>WY 2018</b>	<b>9240</b>	<b>-103</b>	<b>198</b>	<b>8981</b>	<b>0</b>	<b>8981</b>			
*	Oct 2018	641	-11	15	635	0	635	10.3	637.08	1540
	Nov 2018	693	-12	11	627	0	627	10.5	638.70	1583
	Dec 2018	454	-12	9	433	0	433	7.0	638.70	1583
	Jan 2019	618	-19	10	506	0	506	8.2	641.80	1666
	Feb 2019	684	-15	10	659	0	659	11.9	641.80	1666
	Mar 2019	1054	-17	13	990	0	990	16.1	643.05	1700
	Apr 2019	1058	-20	17	1023	0	1023	17.2	643.00	1699
	May 2019	966	-12	22	932	0	932	15.2	643.00	1699
	Jun 2019	907	-15	25	866	0	866	14.6	643.00	1699
	Jul 2019	825	-15	25	811	0	811	13.2	642.00	1671
	Aug 2019	739	-12	23	705	0	705	11.5	642.00	1671
	Sep 2019	733	-12	18	756	0	756	12.7	640.01	1618
	<b>WY 2019</b>	<b>9372</b>	<b>-174</b>	<b>198</b>	<b>8943</b>	<b>0</b>	<b>8943</b>			
	Oct 2019	509	-4	15	674	0	674	11.0	633.00	1434
	Nov 2019	669	-12	10	595	0	595	10.0	635.00	1486
	Dec 2019	593	-12	9	475	0	475	7.7	638.71	1583
	Jan 2020	607	-19	10	496	0	496	8.1	641.80	1666
	Feb 2020	663	-15	10	638	0	638	11.1	641.80	1666
	Mar 2020	988	-17	13	923	0	923	15.0	643.05	1700
	Apr 2020	997	-20	17	962	0	962	16.2	643.00	1699
	May 2020	917	-12	22	882	0	882	14.3	643.00	1699
	Jun 2020	929	-15	25	889	0	889	14.9	643.00	1699
	Jul 2020	813	-15	25	800	0	800	13.0	642.00	1671
	Aug 2020	773	-12	23	739	0	739	12.0	642.00	1671
	Sep 2020	701	-12	18	724	0	724	12.2	640.01	1618
	<b>WY 2020</b>	<b>9160</b>	<b>-166</b>	<b>197</b>	<b>8796</b>	<b>0</b>	<b>8796</b>			
	Oct 2020	473	-4	15	637	0	637	10.4	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 2018 24-Month Study

Most Probable Inflow\*

### Parker Dam - Lake Havasu



	Date	Davis Release (1000 Ac-Ft)	Side Inflow (1000 Ac-Ft)	Evap Losses (1000 Ac-Ft)	Total Release (1000 Ac-Ft)	Total Release (1000 CFS)	MWD Diversion (1000 Ac-Ft)	CAP Diversion (1000 Ac-Ft)	Reservoir Elev End of Month (Ft)	EOM Storage (1000 Ac-Ft)	Flow To Mexico (1000 Ac-Ft)	Flow To Mexico (1000 CFS)
*	Nov 2017	595	12	9	349	5.9	89	127	447.86	577	99	1.7
H	Dec 2017	552	17	7	335	5.5	100	144	446.80	557	109	1.8
I	Jan 2018	437	3	6	329	5.3	29	90	445.81	539	125	2.0
S	Feb 2018	611	3	8	429	7.7	12	109	448.52	590	145	2.6
T	Mar 2018	836	-3	9	637	10.4	61	139	447.46	570	195	3.2
O	Apr 2018	1001	-8	11	735	12.4	75	168	447.13	564	175	2.9
R	May 2018	1001	10	13	697	11.3	87	178	448.51	590	124	2.0
I	Jun 2018	909	6	15	712	12.0	91	88	448.43	588	136	2.3
C	Jul 2018	827	20	17	656	10.7	101	72	448.00	580	133	2.2
A	Aug 2018	730	21	17	611	9.9	99	22	447.53	571	104	1.7
L	Sep 2018	814	10	15	512	8.6	95	164	448.95	598	94	1.6
	<b>WY 2018</b>	<b>8981</b>	<b>100</b>	<b>139</b>	<b>6479</b>		<b>910</b>	<b>1431</b>			<b>1504</b>	
*	Oct 2018	635	22	12	394	6.4	86	176	448.12	582	68	1.1
	Nov 2018	627	16	9	383	6.4	82	176	447.50	571	97	1.6
	Dec 2018	433	18	7	299	4.9	39	121	446.50	552	104	1.7
	Jan 2019	506	21	6	318	5.2	78	120	446.50	552	138	2.2
	Feb 2019	659	11	8	485	8.7	51	120	446.50	552	160	2.9
	Mar 2019	990	7	9	718	11.7	69	188	446.70	555	198	3.2
	Apr 2019	1023	16	11	710	11.9	88	183	448.70	593	175	2.9
	May 2019	932	15	13	642	10.4	90	188	448.70	593	104	1.7
	Jun 2019	866	13	16	683	11.5	88	78	448.70	593	105	1.8
	Jul 2019	811	21	17	647	10.5	90	78	448.00	580	111	1.8
	Aug 2019	705	23	17	589	9.6	90	29	447.50	571	100	1.6
	Sep 2019	756	17	15	509	8.6	88	152	447.50	570	89	1.5
	<b>WY 2019</b>	<b>8943</b>	<b>199</b>	<b>140</b>	<b>6377</b>		<b>941</b>	<b>1609</b>			<b>1449</b>	
	Oct 2019	674	23	12	490	8.0	48	140	447.50	571	74	1.2
	Nov 2019	595	16	9	408	6.9	48	140	447.50	571	116	1.9
	Dec 2019	475	18	7	313	5.1	48	140	446.50	552	131	2.1
	Jan 2020	496	21	6	313	5.1	87	106	446.50	552	134	2.2
	Feb 2020	638	11	8	479	8.3	57	100	446.50	552	155	2.7
	Mar 2020	923	7	9	708	11.5	77	125	446.70	555	191	3.1
	Apr 2020	962	16	11	699	11.7	97	125	448.70	593	168	2.8
	May 2020	882	15	13	635	10.3	99	137	448.70	593	100	1.6
	Jun 2020	889	13	16	675	11.3	97	100	448.70	593	102	1.7
	Jul 2020	800	21	17	642	10.4	99	62	448.00	580	107	1.7
	Aug 2020	739	23	17	587	9.5	99	56	447.50	571	97	1.6
	Sep 2020	724	17	15	507	8.5	97	112	447.50	570	86	1.5
	<b>WY 2020</b>	<b>8796</b>	<b>200</b>	<b>139</b>	<b>6455</b>		<b>955</b>	<b>1342</b>			<b>1460</b>	
	Oct 2020	637	23	12	475	7.7	54	112	447.50	571	71	1.2

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*

### Hoover Dam - Lake Mead



	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 2017	731	12.3	1080.95	10090	-113	435.01	996.0	287.9	63	393.6
H	Dec 2017	594	9.7	1082.52	10221	131	439.05	821.0	235.7	52	396.6
I	Jan 2018	449	7.3	1087.50	10642	421	442.14	834.0	176.5	51	392.9
S	Feb 2018	687	12.4	1088.21	10703	61	441.97	1220.1	275.0	75	400.3
T	Mar 2018	833	13.5	1088.11	10694	-9	442.23	1005.9	333.9	62	400.8
O	Apr 2018	1015	17.1	1084.49	10387	-308	437.15	880.9	406.2	55	400.0
R	May 2018	1055	17.1	1080.00	10011	-376	432.39	1385.9	412.1	88	390.8
I	Jun 2018	986	16.6	1076.81	9748	-263	428.91	1552.0	378.6	100	384.1
C	Jul 2018	820	13.3	1077.43	9799	51	432.34	1552.0	313.2	100	382.0
A	Aug 2018	749	12.2	1078.88	9918	119	435.01	1562.0	287.4	100	383.8
L	Sep 2018	725	12.2	1078.29	9870	-49	434.15	1562.0	278.7	100	384.7
<b>WY 2018</b>		<b>9240</b>							<b>3614.3</b>		
*	Oct 2018	641	10.4	1078.52	9889	19	435.29	1406.1	247.8	87	386.7
	Nov 2018	693	11.6	1078.05	9850	-39	433.65	755.0	277.9	49	401.0
	Dec 2018	454	7.4	1081.25	10115	265	433.17	950.0	177.5	61	390.5
	Jan 2019	618	10.0	1084.36	10375	261	435.09	999.0	243.8	63	394.6
	Feb 2019	684	12.3	1085.55	10476	101	436.20	1006.1	273.5	63	400.1
	Mar 2019	1054	17.1	1082.37	10208	-268	434.74	1000.0	425.7	63	403.8
	Apr 2019	1058	17.8	1077.82	9831	-377	430.91	925.9	428.0	60	404.5
	May 2019	966	15.7	1073.96	9516	-315	426.74	913.0	384.5	60	397.9
	Jun 2019	907	15.2	1071.16	9292	-225	419.15	1512.0	343.2	100	378.6
	Jul 2019	825	13.4	1071.06	9284	-8	418.04	1512.0	313.9	100	380.6
	Aug 2019	739	12.0	1073.06	9444	160	419.31	1528.0	279.1	100	377.5
	Sep 2019	733	12.3	1072.35	9387	-57	420.59	1528.0	278.2	100	379.6
<b>WY 2019</b>		<b>9372</b>							<b>3673.2</b>		
	Oct 2019	509	8.3	1072.00	9359	-28	423.65	1326.9	195.9	88	384.6
	Nov 2019	669	11.2	1070.01	9200	-159	427.60	919.0	259.9	61	388.6
	Dec 2019	593	9.6	1070.10	9208	7	424.41	972.0	227.3	65	383.2
	Jan 2020	607	9.9	1071.85	9347	139	422.86	1025.0	232.3	67	382.5
	Feb 2020	663	11.5	1072.16	9372	25	422.59	1067.0	254.1	70	383.2
	Mar 2020	988	16.1	1068.53	9083	-289	421.20	952.1	382.5	63	387.3
	Apr 2020	997	16.8	1063.59	8697	-385	416.95	878.6	386.7	60	387.7
	May 2020	917	14.9	1059.20	8362	-335	412.32	865.1	349.6	60	381.3
	Jun 2020	929	15.6	1054.60	8019	-343	403.65	1421.9	338.9	100	364.7
	Jul 2020	813	13.2	1053.18	7914	-105	400.99	1413.8	295.8	100	363.8
	Aug 2020	773	12.6	1053.29	7922	8	400.67	1414.5	279.8	100	361.8
	Sep 2020	701	11.8	1051.92	7822	-100	400.69	1406.7	251.9	100	359.5
<b>WY 2020</b>		<b>9160</b>							<b>3454.7</b>		
	Oct 2020	473	7.7	1054.14	7985	163	404.67	1245.6	173.3	88	366.4

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*

### Davis Dam - Lake Mohave



	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 2017	595	10.0	640.07	1619	107	138.81	151.3	73.1	59	122.7
H	Dec 2017	552	9.0	640.68	1636	17	139.44	131.6	69.5	52	126.0
I	Jan 2018	437	7.1	640.86	1641	5	141.78	159.6	55.0	63	125.9
S	Feb 2018	611	11.0	643.18	1704	63	142.18	162.1	76.6	64	125.4
T	Mar 2018	836	13.6	642.57	1687	-17	139.99	189.2	105.4	74	126.1
O	Apr 2018	1001	16.8	642.40	1682	-5	141.14	207.4	125.1	81	125.0
R	May 2018	1001	16.3	643.17	1703	21	141.89	204.0	126.2	80	126.1
I	Jun 2018	909	15.3	644.29	1734	31	143.00	255.0	115.0	100	126.6
C	Jul 2018	827	13.4	642.91	1696	-38	141.79	255.0	105.3	100	127.4
A	Aug 2018	730	11.9	642.29	1679	-17	141.02	255.0	92.7	100	127.1
L	Sep 2018	814	13.7	637.87	1561	-119	136.59	255.0	101.2	100	124.3
<b>WY 2018</b>		<b>8981</b>						<b>1126.3</b>			
*	Oct 2018	635	10.3	637.08	1540	-21	135.95	184.3	77.8	72	122.4
	Nov 2018	627	10.5	638.70	1583	43	133.68	158.1	76.6	62	122.2
	Dec 2018	433	7.0	638.70	1583	0	132.90	207.3	53.9	81	124.3
	Jan 2019	506	8.2	641.80	1666	83	134.32	213.9	63.3	84	125.2
	Feb 2019	659	11.9	641.80	1666	0	136.12	207.6	82.5	81	125.2
	Mar 2019	990	16.1	643.05	1700	34	136.76	207.3	123.1	81	124.4
	Apr 2019	1023	17.2	643.00	1699	-1	136.60	234.6	127.5	92	124.6
	May 2019	932	15.2	643.00	1699	0	136.04	255.0	116.7	100	125.2
	Jun 2019	866	14.6	643.00	1699	0	136.04	255.0	108.6	100	125.4
	Jul 2019	811	13.2	642.00	1671	-27	135.51	255.0	101.8	100	125.4
	Aug 2019	705	11.5	642.00	1671	0	134.99	255.0	88.5	100	125.5
	Sep 2019	756	12.7	640.01	1618	-54	133.94	255.0	93.9	100	124.2
<b>WY 2019</b>		<b>8943</b>						<b>1114.1</b>			
	Oct 2019	674	11.0	633.00	1434	-183	131.28	185.9	81.4	73	120.8
	Nov 2019	595	10.0	635.00	1486	51	129.81	153.0	70.7	60	118.9
	Dec 2019	475	7.7	638.71	1583	97	131.17	200.7	58.1	79	122.3
	Jan 2020	496	8.1	641.80	1666	83	134.32	213.9	62.1	84	125.3
	Feb 2020	638	11.1	641.80	1666	0	136.12	207.6	80.1	81	125.5
	Mar 2020	923	15.0	643.05	1700	34	136.76	207.3	115.2	81	124.8
	Apr 2020	962	16.2	643.00	1699	-1	136.60	234.6	120.2	92	124.9
	May 2020	882	14.3	643.00	1699	0	136.04	255.0	110.7	100	125.5
	Jun 2020	889	14.9	643.00	1699	0	136.04	255.0	111.3	100	125.3
	Jul 2020	800	13.0	642.00	1671	-27	135.51	255.0	100.3	100	125.5
	Aug 2020	739	12.0	642.00	1671	0	134.99	255.0	92.6	100	125.4
	Sep 2020	724	12.2	640.01	1618	-54	133.94	255.0	90.0	100	124.4
<b>WY 2020</b>		<b>8796</b>						<b>1092.8</b>			
	Oct 2020	637	10.4	633.00	1434	-183	131.28	185.9	77.1	73	121.0

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*

### Parker Dam - Lake Havasu



	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 2017	349	5.9	447.86	577	30	81.65	90.0	24.1	75	69.2
H	Dec 2017	335	5.5	446.80	557	-20	81.55	92.9	22.5	77	67.0
I	Jan 2018	329	5.3	445.81	539	-18	80.05	117.1	22.8	98	69.2
S	Feb 2018	429	7.7	448.52	590	50	81.30	92.1	30.3	77	70.6
T	Mar 2018	638	10.4	447.46	570	-20	81.79	102.6	44.9	85	70.4
O	Apr 2018	735	12.4	447.13	564	-6	81.11	120.0	50.8	100	69.1
R	May 2018	697	11.3	448.51	590	26	82.36	120.0	48.5	100	69.6
I	Jun 2018	712	12.0	448.43	588	-1	80.33	120.0	49.7	100	69.9
C	Jul 2018	656	10.7	448.00	580	-8	81.97	120.0	46.0	100	70.2
A	Aug 2018	611	9.9	447.53	571	-9	79.27	120.0	42.7	100	69.9
L	Sep 2018	512	8.6	448.95	598	27	83.02	120.0	35.9	100	70.1
<b>WY 2018</b>		<b>6479</b>							<b>451.7</b>		
*	Oct 2018	394	6.4	448.12	582	-16	82.83	90.0	27.9	75	70.9
	Nov 2018	383	6.4	447.50	571	-12	76.44	93.0	25.0	78	65.4
	Dec 2018	299	4.9	446.50	552	-19	74.69	113.2	18.9	94	63.0
	Jan 2019	318	5.2	446.50	552	0	75.27	91.0	20.3	76	63.8
	Feb 2019	485	8.7	446.50	552	0	75.21	92.1	31.8	77	65.5
	Mar 2019	718	11.7	446.70	555	4	74.05	119.0	46.7	99	65.0
	Apr 2019	710	11.9	448.70	593	38	75.08	120.0	46.7	100	65.8
	May 2019	642	10.4	448.70	593	0	76.05	120.0	42.6	100	66.3
	Jun 2019	683	11.5	448.70	593	0	76.05	120.0	45.4	100	66.5
	Jul 2019	647	10.5	448.00	580	-13	75.71	120.0	42.7	100	66.1
	Aug 2019	589	9.6	447.50	571	-9	75.13	120.0	38.5	100	65.4
	Sep 2019	509	8.6	447.50	570	0	74.89	120.0	33.1	100	65.0
<b>WY 2019</b>		<b>6377</b>							<b>419.7</b>		
	Oct 2019	490	8.0	447.50	571	0	76.29	90.0	32.4	75	66.1
	Nov 2019	408	6.9	447.50	571	0	76.14	93.0	26.7	78	65.5
	Dec 2019	313	5.1	446.50	552	-19	74.65	114.2	19.7	95	63.2
	Jan 2020	313	5.1	446.50	552	0	75.07	94.8	19.9	79	63.6
	Feb 2020	479	8.3	446.50	552	0	75.21	92.1	31.3	77	65.4
	Mar 2020	708	11.5	446.70	555	4	74.01	120.0	45.9	100	64.9
	Apr 2020	699	11.7	448.70	593	38	75.08	120.0	46.0	100	65.8
	May 2020	635	10.3	448.70	593	0	76.05	120.0	42.1	100	66.3
	Jun 2020	675	11.3	448.70	593	0	76.05	120.0	44.9	100	66.5
	Jul 2020	642	10.4	448.00	580	-13	75.71	120.0	42.4	100	66.0
	Aug 2020	587	9.5	447.50	571	-9	75.13	120.0	38.4	100	65.4
	Sep 2020	507	8.5	447.50	570	0	74.89	120.0	32.9	100	65.0
<b>WY 2020</b>		<b>6455</b>							<b>422.7</b>		
	Oct 2020	475	7.7	447.50	571	0	76.29	90.0	31.4	75	66.0

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*

### Upper Basin Power



	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 2017	288	55	12	14	8	7
H Dec 2017	339	68	27	33	19	6
I Jan 2018	394	68	17	21	12	6
S Feb 2018	335	60	9	12	3	5
T Mar 2018	364	41	12	16	9	1
<b>Winter 2018</b>	<b>2013</b>	<b>334</b>	<b>107</b>	<b>133</b>	<b>71</b>	<b>31</b>
O Apr 2018	318	39	23	27	16	5
R May 2018	318	63	23	33	20	7
I Jun 2018	343	50	27	34	20	8
C Jul 2018	384	48	27	36	20	8
A Aug 2018	393	50	24	33	19	7
L Sep 2018	288	47	8	29	16	1
<b>Summer 2018</b>	<b>2045</b>	<b>297</b>	<b>133</b>	<b>193</b>	<b>111</b>	<b>36</b>
* Oct 2018	268	39	11	19	9	4
Nov 2018	254	33	5	3	2	5
Dec 2018	283	45	4	7	4	5
Jan 2019	326	45	4	6	4	5
Feb 2019	277	41	4	6	3	4
Mar 2019	284	34	4	7	4	4
<b>Winter 2019</b>	<b>1691</b>	<b>236</b>	<b>33</b>	<b>48</b>	<b>26</b>	<b>26</b>
Apr 2019	247	33	10	17	10	5
May 2019	248	40	40	62	23	5
Jun 2019	278	61	21	35	22	9
Jul 2019	317	31	19	26	14	10
Aug 2019	338	38	21	28	14	7
Sep 2019	243	37	19	25	13	3
<b>Summer 2019</b>	<b>1672</b>	<b>240</b>	<b>129</b>	<b>193</b>	<b>97</b>	<b>38</b>
Oct 2019	179	22	11	16	9	6
Nov 2019	185	22	4	5	3	6
Dec 2019	222	38	4	6	4	6
Jan 2020	265	38	4	6	4	5
Feb 2020	233	36	3	5	0	5
Mar 2020	245	25	0	7	4	5
<b>Winter 2020</b>	<b>1330</b>	<b>180</b>	<b>26</b>	<b>45</b>	<b>23</b>	<b>33</b>
Apr 2020	218	24	0	17	10	5
May 2020	223	78	2	80	23	7
Jun 2020	242	44	7	16	13	9
Jul 2020	277	45	19	25	14	10
Aug 2020	297	45	22	27	14	9
Sep 2020	221	44	20	25	13	2
<b>Summer 2020</b>	<b>1257</b>	<b>235</b>	<b>50</b>	<b>164</b>	<b>76</b>	<b>39</b>
Oct 2020	250	45	17	21	11	8

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

# OPERATION PLAN FOR COLORADO RIVER SYSTEM RESERVOIRS



## November 2018 24-Month Study

Most Probable Inflow\*

### Flood Control Criteria

#### Beginning of Month Conditions



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	Total	BOM Space Required	Mead Sched Rel	Mead FC Rel	Sys Cont
	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	KAF	MAF
<b>**** PREDICTED SPACE ****</b>								<b>**** CREDITABLE SPACE ****</b>										
Nov 2018	505	582	799	13460	15346	17488	32834	505	582	799	1886	13460	17488	32834	3810	693	0	27.4
Dec 2018	549	584	806	13771	15709	17527	33237	549	584	806	1939	13771	17527	33237	4580	454	0	27.2
Jan 2019	638	584	814	14159	16195	17262	33457	638	584	814	2036	14159	17262	33457	5350	618	0	26.9
<b>**** EFFECTIVE SPACE ****</b>								<b>**** CREDITABLE SPACE ****</b>										
Jan 2019	638	584	814	14159	16195	17262	33457	160	185	352	697	14159	17262	32118	5350	618	0	26.9
Feb 2019	722	584	823	14660	16789	17002	33791	244	185	361	790	14660	17002	32452	1500	684	0	26.6
Mar 2019	790	586	825	15038	17239	16901	34140	310	188	362	860	15038	16901	32799	1500	1054	0	26.0
Apr 2019	791	580	804	15377	17552	17169	34721	308	181	335	824	15377	17169	33370	1500	1058	0	25.7
May 2019	761	566	763	15477	17567	17546	35113	272	165	271	708	15477	17546	33730	1500	966	0	26.0
Jun 2019	721	571	662	14982	16935	17861	34796	223	158	131	512	14982	17861	33355	1500	907	0	27.0
Jul 2019	609	452	601	14102	15764	18085	33850	100	20	15	134	14102	18085	32322	1500	825	0	26.8
<b>**** CREDITABLE SPACE ****</b>								<b>**** CREDITABLE SPACE ****</b>										
Aug 2019	528	430	646	14269	15873	18093	33966	528	430	646	1603	14269	18093	33966	1500	739	0	26.4
Sep 2019	570	452	669	14707	16398	17933	34331	570	452	669	1691	14707	17933	34331	2270	733	0	26.0
Oct 2019	634	479	672	14935	16720	17990	34710	634	479	672	1785	14935	17990	34710	3040	509	0	25.7
Nov 2019	650	485	665	14975	16775	18018	34793	650	485	665	1800	14975	18018	34793	3810	669	0	25.5
Dec 2019	665	468	662	15062	16858	18177	35035	665	468	662	1796	15062	18177	35035	4580	593	0	25.4
Jan 2020	736	456	664	15251	17107	18169	35276	736	456	664	1856	15251	18169	35276	5350	607	0	25.3
<b>**** EFFECTIVE SPACE ****</b>								<b>**** CREDITABLE SPACE ****</b>										
Jan 2020	736	456	664	15251	17107	18169	35276	375	401	547	1323	15251	18169	34744	5350	607	0	25.3
Feb 2020	801	444	668	15540	17453	18030	35483	439	390	550	1380	15540	18030	34950	1500	663	0	25.0
Mar 2020	857	433	661	15743	17695	18005	35700	493	380	543	1416	15743	18005	35165	1500	988	0	24.8
Apr 2020	827	408	604	15874	17715	18294	36009	458	359	479	1296	15874	18294	35464	1500	997	0	24.8
May 2020	767	369	509	15680	17324	18680	36004	390	317	360	1067	15680	18680	35427	1500	917	0	26.0
Jun 2020	743	342	354	14324	15762	19015	34777	358	292	165	815	14324	19015	34153	1500	929	0	27.5
Jul 2020	490	118	264	13043	13915	19358	33273	87	55	19	161	13043	19358	32561	1500	813	0	27.7
<b>**** CREDITABLE SPACE ****</b>								<b>**** CREDITABLE SPACE ****</b>										
Aug 2020	420	75	307	12820	13622	19463	33085	420	75	307	802	12820	19463	33085	1500	773	0	27.4
Sep 2020	469	87	331	13031	13917	19455	33372	469	87	331	886	13031	19455	33372	2270	701	0	27.1
Oct 2020	545	115	336	13120	14115	19555	33670	545	115	336	995	13120	19555	33670	3040	473	0	26.9

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