RESOLUTION of the

UPPER COLORADO RIVER COMMISSION

Updated 2016 Upper Division States Depletion Demand Schedule

June 14th, 2022

WHEREAS the Upper Colorado River Commission (Commission) supports water resource development in the Upper Colorado River Basin to enable the Upper Division States of Colorado, New Mexico, Utah, and Wyoming to develop their respective apportionments of Colorado River water while meeting the Compact requirements at Lee Ferry; and

WHEREAS Depletion Demand Schedules issued by the Commission are not a prediction of future water use or depletions. The Depletion Demand Schedules are estimates that presume the continuation of the observed historically available supply and other demand drivers used for planning purposes and are useful for modeling purposes. The Depletion Demand Schedules are used by the Bureau of Reclamation (Reclamation) in its Colorado River Simulation System (CRSS) modeling of Colorado River system operations; and

WHEREAS on June 6th, 2017, the Commission adopted the 2016 Upper Basin Depletion Demand Schedule; and

WHEREAS the 2016 UCRC Depletion Demand Schedule used historical average depletions intentionally limited to reflect assumed hydrologic conditions prior to its inclusion in CRSS; and

WHEREAS recent improvements and refinements to CRSS, undertaken by Reclamation and the Upper Division States, necessitated adjustments to the 2016 UCRC Depletion Demand Schedule in order to more accurately characterize Upper Division depletions under a broad range of supply conditions; and

WHEREAS this updated 2016 Upper Basin Depletion Demand Schedule (Updated 2016 Schedule) reflects a more accurate representation of demands resulting in a more accurate estimation of depletions under a broader range of hydrologic conditions in CRSS; and

WHEREAS the Updated 2016 Schedule, in conjunction with improvements and refinements to CRSS, results in a significant reduction in error and bias for the Upper Colorado River Basin, including modeled inflow to Lake Powell; and

WHEREAS the Upper Division States recognize the use of the Updated 2016 Schedule for planning and modeling purposes but also acknowledge that these estimates may be changed in the future based upon new assumptions or information; and

WHEREAS the Updated 2016 Schedule does not constitute an interpretation of, nor shall anyone construe it as interpreting or in any manner limiting or constraining, Upper Colorado River Basin Compact apportionments;

NOW, THEREFORE BE IT RESOLVED that the Commission requests that the attached Updated 2016 Schedule of projected estimates of Upper Colorado River Division States demands be used for planning purposes, modeling, and water supply studies within the Colorado River Basin; and

BE IT FURTHER RESOLVED that the Updated 2016 Schedule supersedes the 2016 Depletion Demand Schedule in its entirety; and

BE IT FINALLY RESOLVED that this resolution shall be transmitted to the Regional Director of the Upper Colorado Region of the Bureau of Reclamation in Salt Lake City, Utah, and as appropriate to other federal, state, and congressional officials who may need to use these demand estimates.

CERTIFICATE

I, CHARLES CULLOM, Executive Director and Secretary of the Upper Colorado River Commission, do hereby certify that the above resolution was unanimously adopted by the Upper Colorado River Commission at its meeting held on June 14th, 2022, in Cheyenne, Wyoming.

WITNESS my hand this 14th day of June 2022.

Charles Cullom
Executive Director and Secretary

Upper Colorado River Division States
Updated 2016 Current and Future Depletion Demand Schedule [1,2,5]
Total Upper Colorado River Division States
June 14, 2022
(Units: 1,000 acre-feet)

ITEM	YEAR						
	Current/Historic	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
Agriculture-Irrigation & Stock	3,548	3,567	3,596	3,620	3,629	3,633	3,622
Potential Agriculture-Irrigation & Stock		0	0	0	0	0	0
Municipal/Industrial	106	115	132	144	158	167	172
Potential Municipal/Industrial		2	4	12	14	16	16
Self-Served Industrial	12	12	12	12	12	12	12
Potential Self-Served Industrial		0	0	0	0	0	0
Energy	148	151	158	163	168	173	178
Potential Energy		5	10	10	15	10	0
Minerals	53	57	65	73	81	94	103
Potential Minerals		2	8	17	26	31	33
Export	1,055	1,085	1,167	1,239	1,302	1,377	1,513
Potential Export		50	75	100	125	100	0
UT Tribal Water Settlements[3]	0	2	70	141	148	153	153
Reservoir Evaporation (in-state)	261	261	261	261	261	261	261
Potential Reservoir Evaporation		0	0	0	0	0	0
TOTAL Forecasted Depletions	**5,183**	**5,309**	**5,558**	**5,792**	**5,939**	**6,027**	**6,063**
Shared CRSP Evap (0.520maf)[4]	520	520	520	520	520	520	520
TOTAL	**5,703**	**5,829**	**6,078**	**6,312**	**6,459**	**6,547**	**6,583**

Note 1: This depletion schedule does not attempt to interpret the Colorado River Compact, the Upper Colorado River Basin Compact, or any other element of the "Law of the River." This schedule should not be construed as an acceptance of any assumption that limits the Upper Colorado River Basin's depletions.

Note 2: This depletion schedule is for planning purposes only. It is not a tabulation or determination of water rights or actual uses.

Note 3: Existing Tribal uses are captured by the Agricultural and M&I sectors, and future Tribal uses are represented in the Tribal Settlements category.

Note 4: "Shared CRSP Evap" refers to evaporation from the reservoirs constructed under the Colorado River Storage Project (CRSP) Act that are used to regulate compact deliveries at Lee Ferry and generate CRSP hydroelectric power. These include Lake Powell, Flaming Gorge Reservoir, and the Aspinall Unit. This evaporation amount is the anticipated long-term average. Evaporation will vary annually depending on reservoir storage and climatic conditions.

Note 5: To find more materials related to this Depletion Demand Schedule, please follow this link to the Upper Colorado River Commission's Depletion Demand Schedule webpage: http://www.ucrcommission.com/upper-colorado-river-division-states-depletion-demand-schedules/.

Upper Colorado River Division States
Updated 2016 Current and Future Depletion Demand Schedule [1,2,4]
Colorado
June 14, 2022
(Units: 1,000 acre-feet)

ITEM	YEAR						
	Current/Historic	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
Agriculture-Irrigation & Stock[3]	1,863	1,863	1,869	1,870	1,876	1,877	1,863
Potential Agriculture-Irrigation & Stock		0	0	0	0	0	0
Municipal/Industrial	61	60	65	65	71	70	71
Potential Municipal/Industrial		0	0	5	5	5	5
Self-Served Industrial	11	11	11	11	11	11	11
Potential Self-Served Industrial		0	0	0	0	0	0
Energy	30	33	40	45	50	55	60
Potential Energy		5	10	10	15	10	0
Minerals	32	35	40	45	50	60	66
Potential Minerals		0	0	3	5	4	0
Export	732	740	775	800	850	900	1,013
Potential Export		50	75	100	125	100	0
Reservoir Evaporation (in-state)	130	130	130	130	130	130	130
Potential Reservoir Evaporation		0	0	0	0	0	0
TOTAL Forecasted Depletions	**2,859**	**2,927**	**3,015**	**3,084**	**3,188**	**3,222**	**3,219**

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Note 2: This depletion schedule is for planning purposes only. It is not a tabulation or determination of water rights or actual uses.

Note 3: Increases in current/historic Agriculture depletions represent a change in consumptive use calculation methodology. There has been no documented evidence of increase in actual consumptive use over this time frame. 2016 calculations used the modified Blaney-Criddle method with elevation adjustments. We anticipate an additional increase in calculated consumptive use if the Penman-Monteith method is used in the future.

Note 4: To find more materials related to this Depletion Demand Schedule, please follow this link to the Upper Colorado River Commission's Depletion Demand Schedule webpage: http://www.ucrcommission.com/upper-colorado-river-division-states-depletion-demand-schedules/.

Upper Colorado River Division States
Updated 2016 Current and Future Depletion Demand Schedule [1,2,4]
New Mexico
June 14, 2022
(Units: 1,000 acre-feet)

ITEM	YEAR						
	Current/Historic	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
Agriculture-Irrigation & Stock	323	341	361	381	381	381	381
Potential Agriculture-Irrigation & Stock		0	0	0	0	0	0
Municipal/Industrial	16	23	32	41	47	54	55
Potential Municipal/Industrial		0	0	0	0	0	0
Self-Served Industrial	1	1	1	1	1	1	1
Potential Self-Served Industrial		0	0	0	0	0	0
Energy	54	54	54	54	54	54	54
Potential Energy		0	0	0	0	0	0
Minerals	2	2	2	2	2	2	2
Potential Minerals		0	0	0	0	0	0
Export[3]	175	175	186	190	190	190	190
Potential Export		0	0	0	0	0	0
Reservoir Evaporation (in-state)	29	29	29	29	29	29	29
Potential Reservoir Evaporation		0	0	0	0	0	0
TOTAL Forecasted Depletions	**600**	**625**	**665**	**698**	**704**	**711**	**712**

Note 1: This depletion schedule does not attempt to interpret the Colorado River Compact, the Upper Colorado River Basin Compact, or any other element of the "Law of the River." This schedule should not be construed as an acceptance of any assumption that limits the Upper Colorado River Basin's depletions.

Note 2: This depletion schedule is for planning purposes only. It is not a tabulation or determination of water rights or actual uses.

Note 3: One of the exports of the Colorado River Basin water to New Mexico is the San Juan-Chama Project (SJCP). This federally authorized project consists of three points of diversion on three streams in southwest Colorado, all of which are tributary to the San Juan River above Navajo Reservoir. Water is then routed into a series of tunnels crossing the Continental Divide into the Rio Grande Basin. The SJCP Diversions are subject to several practical and legal constraints. While the points of diversion are operated to maximize diversions as constrained, annual exports fluctuate widely in part due to annual variation in the hydrology of the catchments above the points of diversion. Based on historical operations and tunnels capacity, demand in this schedule is set at 175,000 acre-feet per water year. Setting Project demand at a lower amount in CRSS would under-simulate wetter years in which more water is available for diversion. The amount reflected in this schedule is solely for the purposes of characterizing the SJCP performance in CRSS more accurately. This amount is different from, and should NOT be confused with the maximum amount allowed by law and should not be used for any shortage determinations in the San Juan Basin. The projected increase from 2030 onward is related to the Navajo-Gallup Water Supply Project coming on line.

Note 4: To find more materials related to this Depletion Demand Schedule, please follow this link to the Upper Colorado River Commission's Depletion Demand Schedule webpage: http://www.ucrcommission.com/upper-colorado-river-division-states-depletion-demand-schedules/.

Upper Colorado River Division States
Updated 2016 Current and Future Depletion Demand Schedule [1,2,5]
Utah
June 14, 2022
(Units: 1,000 acre-feet)

ITEM	YEAR						
	Current/Historic	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
Agriculture-Irrigation & Stock	772	772	772	772	772	772	772
Potential Agriculture-Irrigation & Stock	0	0	0	0	0	0	0
Municipal/Industrial	18	18	19	20	21	23	24
Potential Municipal/Industrial	0	0	0	0	0	0	0
Self-Served Industrial	0	0	0	0	0	0	0
Potential Self-Served Industrial	0	0	0	0	0	0	0
Energy[3]	36	36	36	36	36	36	36
Potential Energy	0	0	0	0	0	0	0
Minerals	0	0	0	0	0	0	0
Potential Minerals	0	0	0	0	0	0	0
Export	135	156	190	230	241	264	287
Potential Export	0	0	0	0	0	0	0
UT Tribal Water Settlements[4]	0	2	70	141	148	153	153
Reservoir Evaporation (in-state)	75	75	75	75	75	75	75
Potential Reservoir Evaporation	0	0	0	0	0	0	0
TOTAL Forecasted Depletions	**1,036**	**1,059**	**1,162**	**1,274**	**1,293**	**1,323**	**1,347**

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Note 2: This depletion schedule is for planning purposes only. It is not a tabulation or determination of water rights or actual uses.

Note 3: Mineral uses are included in the M&I Sector

Note 4: Existing Tribal uses are captured by the Agricultural and M&I sectors, and future Tribal uses are represented in the Tribal Settlements category.

Note 5: To find more materials related to this Depletion Demand Schedule, please follow this link to the Upper Colorado River Commission's Depletion Demand Schedule webpage: http://www.ucrcommission.com/upper-colorado-river-division-states-depletion-demand-schedules/.

Upper Colorado River Division States
Updated 2016 Current and Future Depletion Demand Schedule [1,2,4]
Wyoming
June 14, 2022
(Units: 1,000 acre-feet)

ITEM	YEAR						
	Current/Historic	**2020**	**2030**	**2040**	**2050**	**2060**	**2070**
Agriculture-Irrigation & Stock	590	591	594	597	600	603	606
Potential Agriculture-Irrigation & Stock	0	0	0	0	0	0	0
Municipal/Industrial	11	14	16	18	19	20	22
Potential Municipal/Industrial	0	2	4	7	9	11	11
Self-Served Industrial	0	0	0	0	0	0	0
Potential Self-Served Industrial	0	0	0	0	0	0	0
Energy	28	28	28	28	28	28	28
Potential Energy	0	0	0	0	0	0	0
Minerals	19	20	23	26	29	32	35
Potential Minerals	0	2	8	14	21	27	33
Export	13	14	16	19	21	23	23
Potential Export	0	0	0	0	0	0	0
Reservoir Evaporation (in-state)	27	27	27	27	27	27	27
Potential Reservoir Evaporation	0	0	0	0	0	0	0
TOTAL Forecasted Depletions	**688**	**698**	**716**	**736**	**754**	**771**	**785**

Note 1: This depletion schedule does not attempt to interpret the Colorado River Compact, the Upper Colorado River Basin Compact, or any other element of the "Law of the River." This schedule should not be construed as an acceptance of any assumption that limits the Upper Colorado River Basin's depletions.

Note 2: This depletion schedule is for planning purposes only. It is not a tabulation or determination of water rights or actual uses.

Note 3: Wyoming's Current/Historic Agriculture Consumptive Use was calculated using a Penman-Monteith procedure. The 2007 estimates were calculated using a Blaney-Criddle procedure. This change in methodology primarily accounts for the increase in estimated consumptive use from irrigated lands. There has been no documented actual increase in consumptive use over this time frame. We do believe the Penman-Monteith methodology is more accurate than Blaney-Criddle.

Note 4: To find more materials related to this Depletion Demand Schedule, please follow this link to the Upper Colorado River Commission's Depletion Demand Schedule webpage: http://www.ucrcommission.com/upper-colorado-river-division-states-depletion-demand-schedules/.