
Appendix L

Upper Division States Depletion Schedules

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Appendix L. Upper Division States Depletion Schedules

L.1 Overview of Methodology for Developing the Baseline Upper Division States Depletion Demand Schedules

The Upper Basin Colorado River Simulation System (CRSS) baseline demand schedules were developed from the Upper Colorado River Commission’s (UCRC) updated 2016 Depletion Demand Schedule^{1,2}. Specifically, the UCRC—in coordination with the Upper Division States—developed decadal projections of water depletion demands by sector at the state level to support long-term planning efforts. These projections represent anticipated water demands under assumed economic and hydrologic conditions. The Arizona portion of the Upper Basin demand schedule was developed by Reclamation and is primarily comprised of Navajo Nation uses. The representation of the Upper Colorado Basin Tribes in the UCRC depletion demand schedule was presented in documentation dated July 13, 2022, that outlines the differences between the 2018 Tribal Water Study demand schedules and the updated 2016 Depletion Demand Schedule^{3,4}.

To integrate the UCRC’s decadal projections into CRSS, Reclamation worked with the Upper Division States to disaggregate the state-level demand estimates to CRSS’ spatial resolution at an annual timestep. These annual depletion values were further disaggregated to a monthly timestep using sector and subbasin-specific monthly distribution coefficients, which were derived either from data provided by the Upper Division States or from average distributions based on Reclamation’s Consumptive Use & Loss (CU&L) reports. Corresponding diversion values were subsequently

¹ Upper Colorado River Commission (UCRC) & Upper Division States. (2022, June 14). *Combined Resolution and Updated 2016 Depletion Demand Schedule*. Upper Colorado River Commission. Retrieved from <http://www.ucrccommission.com/wp-content/uploads/2022/06/UCRC-and-Upper-Division-States-Combined-Resolution-and-Updated-2016-Depletion-Demand-Schedule-June-14-2022-1.pdf>.

² Neither the CRSS baseline demands nor the UCRC 2016 Depletion Demand Schedule include reservoir evaporation undistributed by state from Lake Powell, Flaming Gorge, Blue Mesa, Morrow Point, which averages 520.0 maf per year.

³ The Post-2026 modeling is based on water rights of the Ute Indian Tribe of the Uintah & Ouray Reservation that have not been ratified by all parties. The Ute Indian Tribe of the Uintah & Ouray Reservation has federally reserved Indian water rights, a portion of which were federally decreed in 1923 and a portion of which have been separately recognized and put to use by the United States and the State of Utah, which are not fully resolved.

⁴ The information reflected in the baseline depletion demands schedule relies on information about projected future Tribal water demands. The projections were based on information compiled in a Colorado River Basin Ten Tribes Partnership Tribal Water Study (December 2018). As discussed in Chapter 8 of that Study, the technical approach was based on the best science and information available at the time, given limitations related to timeframes and resource constraints, among other things. The Study also noted that tribes were in the process of developing and implementing tribal water development plans. The Navajo Nation has informed Reclamation that it is developing updated projections as part of its water development planning. Reclamation will work with the Navajo Nation as needed to update demand schedules prior to the publication of a Final EIS. The use of the 2018 projections reflected in this Draft EIS is appropriate to allow readers to compare among alternatives; updated demand projections are not expected to change the comparison among alternatives.

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calculated using the disaggregated depletion estimates and water-user-specific efficiency ratios. State level reservoir evaporation for reservoir's explicitly represented in CRSS⁵, which averages 56.0 thousand acre-feet (kaf) per year, were removed from the UCRC's decadal projections before loading in CRSS, but are included in the table below.

Table L-1 shows the depletion demands for the Upper Basin by state.

Table L-1
Upper Division States Depletion Demand Schedule

Calendar Year	Arizona	Colorado	New Mexico	Utah	Wyoming	Total Upper Basin
2027	33	2,989	653	1,131	710	5,516
2028	32	2,998	657	1,141	712	5,541
2029	32	3,007	661	1,152	714	5,565
2030	31	3,016	665	1,162	716	5,590
2031	31	3,022	668	1,173	718	5,613
2032	31	3,029	671	1,185	720	5,636
2033	30	3,036	675	1,196	722	5,659
2034	30	3,043	678	1,206	724	5,680
2035	29	3,050	681	1,216	726	5,702
2036	29	3,057	685	1,228	728	5,726
2037	28	3,064	688	1,239	730	5,749
2038	28	3,071	691	1,251	731	5,772
2039	28	3,077	695	1,263	733	5,796
2040	27	3,084	698	1,274	735	5,819
2041	27	3,095	699	1,277	737	5,834
2042	26	3,105	699	1,277	739	5,847
2043	26	3,115	700	1,278	741	5,860
2044	25	3,126	700	1,279	742	5,873
2045	25	3,136	701	1,280	744	5,886
2046	24	3,147	702	1,280	746	5,899
2047	24	3,157	702	1,283	748	5,914
2048	24	3,167	703	1,286	749	5,930
2049	23	3,178	703	1,290	751	5,945
2050	23	3,188	704	1,293	753	5,961
2051	22	3,191	705	1,296	755	5,969
2052	22	3,195	705	1,299	757	5,978
2053	21	3,198	706	1,302	758	5,986
2054	21	3,202	707	1,305	760	5,994
2055	21	3,205	707	1,308	762	6,003
2056	20	3,209	708	1,311	764	6,011
2057	20	3,212	709	1,314	765	6,020
2058	19	3,215	710	1,317	767	6,028

⁵ Reservoir evaporation distributed by state explicitly represented in CRSS includes Navajo, McPhee, Dillon, Granby, Homestake and Willow Creek reservoirs.

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Calendar Year	Arizona	Colorado	New Mexico	Utah	Wyoming	Total Upper Basin
2059	19	3,219	710	1,320	769	6,036
2060	18	3,222	711	1,323	771	6,045

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