

Appendix 2 – LCRAS Open Water Monthly Evaporative Losses

Foreword

Data regarding the monthly and total evaporation are all provided in acre-feet. Due to rounding to the nearest acre-foot, the total value shown in a row may differ from the sum of the monthly values.

Introduction

This Appendix to the Lower Colorado River Mainstream Evaporation and Riparian Evapotranspiration Losses Report provides the monthly and annual evaporation losses from the LCRAS dataset between 2017 and 2021. Table A2-1 through Table A2-4 provide the losses estimated by the LCRAS report for Reach 2 through Reach 5. Table A2-5 provides the sum of the estimated losses between Hoover Dam, the start point of Reach 2, to the Northerly International Boundary, the end point of Reach 5. Table A2-6 provides the annual open water acreages for each reach, and the total acreage, that was used to estimate LCRAS evaporative losses for each reach.

Table A2-1. Reach 2, Hoover Dam to Davis Dam – Monthly and Annual LCRAS Evaporation in Acre-Feet

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	138,505	4,833	5,494	11,170	15,022	18,122	18,145	17,279	14,361	11,352	10,463	6,360	5,904
2018	144,980	6,406	6,793	10,304	16,185	18,852	19,445	17,666	16,800	12,059	9,164	6,884	4,422
2019	135,996	5,380	5,015	9,939	15,341	16,663	18,829	17,872	15,569	11,648	9,870	6,451	3,419
2020	146,212	5,790	7,181	9,141	14,407	20,562	19,103	19,262	16,504	12,196	9,118	7,249	5,699
2021	146,643	6,793	7,181	10,645	16,595	19,239	18,920	18,647	16,276	11,603	8,890	7,568	4,286
Average	142,467	5,840	6,333	10,240	15,510	18,688	18,888	18,145	15,902	11,772	9,501	6,902	4,746

Table A2-2. Reach 3, Davis Dam to Parker Dam – Monthly and Annual LCRAS Evaporation in Acre-Feet

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	117,424	4,097	4,658	9,470	12,736	15,364	15,383	14,649	12,175	9,624	8,871	5,392	5,005
2018	123,179	5,442	5,772	8,754	13,751	16,017	16,521	15,010	14,274	10,246	7,786	5,849	3,757
2019	115,547	4,571	4,261	8,444	13,034	14,158	15,998	15,184	13,228	9,897	8,386	5,481	2,905
2020	124,224	4,919	6,101	7,766	12,240	17,470	16,230	16,366	14,022	10,362	7,747	6,159	4,842
2021	124,459	5,765	6,094	9,035	14,085	16,329	16,058	15,826	13,814	9,848	7,545	6,423	3,637
Average	120,967	4,959	5,377	8,694	13,169	15,868	16,038	15,407	13,503	9,995	8,067	5,861	4,029

Table A2-3. Reach 4, Parker Dam to Imperial Dam – Monthly and Annual LCRAS Evaporation in Acre-Feet

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	67,080	1,611	2,203	4,732	6,965	7,842	9,473	9,259	8,199	6,292	5,415	2,835	2,254
2018	66,535	1,991	2,451	4,523	7,209	8,210	9,047	8,700	8,710	6,617	4,421	3,094	1,562
2019	66,664	1,624	2,023	4,424	6,968	7,540	9,134	9,348	9,001	6,682	5,445	3,024	1,451
2020	70,748	2,014	2,791	3,782	6,440	8,607	9,251	10,141	9,200	7,421	5,602	3,455	2,044
2021	71,470	1,983	2,739	4,528	7,113	8,626	9,842	9,648	8,912	6,991	5,294	3,638	2,156
Average	68,499	1,845	2,441	4,398	6,939	8,165	9,349	9,419	8,804	6,801	5,235	3,209	1,893

Table A2-4. Reach 5, Imperial Dam to Northerly International Boundary – Monthly and Annual LCRAS Evaporation in Acre-Feet

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	8,415	252	333	664	829	927	1,112	1,201	1,099	803	640	288	267
2018	8,254	317	350	616	822	961	1,016	1,117	1,102	882	570	313	188
2019	8,182	236	314	632	833	922	1,089	1,129	1,102	819	622	299	185
2020	8,535	288	386	520	779	1,025	1,111	1,221	1,176	879	582	331	237
2021	8,512	276	396	653	868	975	1,077	1,137	1,110	835	610	365	210
Average	8,380	274	356	617	826	962	1,081	1,161	1,118	844	605	319	217

Table A2-5. Sum of Evaporative Losses for Reaches 2 to 5, Hoover Dam to Northerly International Boundary – Monthly and Annual LCRAS Evaporation in Acre-Feet

Year	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	331,424	10,793	12,688	26,036	35,552	42,255	44,113	42,388	35,834	28,071	25,389	14,875	13,430
2018	342,948	14,156	15,366	24,197	37,967	44,040	46,029	42,493	40,886	29,804	21,941	16,140	9,929
2019	326,389	11,811	11,613	23,439	36,176	39,283	45,050	43,533	38,900	29,046	24,323	15,255	7,960
2020	349,719	13,011	16,459	21,209	33,866	47,664	45,695	46,990	40,902	30,858	23,049	17,194	12,822
2021	351,084	14,817	16,410	24,861	38,661	45,169	45,897	45,258	40,112	29,277	22,339	17,994	10,289
Average	340,313	12,918	14,507	23,948	36,444	43,682	45,357	44,132	39,327	29,411	23,408	16,292	10,886

Table A2-6. Sum of open water acreages for Reaches 2 to 5, Hoover Dam to Northerly International Boundary

Year	Total	Reach 2	Reach 3	Reach 4	Reach 5
2017	64,123	27,355	23,191	12,237	1,341
2018	64,185	27,355	23,241	12,253	1,336
2019	64,196	27,355	23,241	12,260	1,341
2020	64,216	27,355	23,241	12,267	1,353
2021	64,200	27,355	23,216	12,264	1,365
Average	64,184	27,355	23,226	12,256	1,347