

Appendix 4 – LCRAS Riparian Monthly Evapotranspiration Losses by Vegetation

Foreword

Data regarding the monthly and total riparian evapotranspiration (ET) losses 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 riparian evapotranspiration losses by vegetation type from the LCRAS dataset between 2017 and 2021. Table A4-1 through Table A4-4 provide the losses estimated by the LCRAS report for Reach 2 through Reach 5. Table A4-5 provides the sum of the estimated riparian evapotranspiration losses by vegetation type between Hoover Dam, the start point of Reach 2, to the Northerly International Boundary, the end point of Reach 5. Table A4-6 provides the annual acreages by vegetation type for each reach, and the total acreage, that was used to estimate LCRAS riparian evapotranspiration losses for each reach.

Table A4-1. Reach 2, Hoover Dam to Davis Dam – Monthly and Annual Riparian ET Losses by Vegetation Type in Acre-Feet

Year	Vegetation Type	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	Cottonwood/Willow	93	1	1	4	8	13	15	15	13	11	8	3	1
2017	Marsh	34	0	0	2	4	5	6	6	5	4	2	0	0
2017	Mixed Veg Low	846	13	15	47	84	124	137	137	119	81	53	19	17
2017	Mixed Veg Medium	1,175	26	31	77	119	167	184	184	146	100	71	35	35
2017	Salt Cedar Dense	2,065	25	30	77	168	292	338	338	300	245	166	52	34
2017	USGS barren	0	0	0	0	0	0	0	0	0	0	0	0	0
2017	Sum	4,213	65	77	207	383	601	680	680	583	441	300	109	87
2018	Cottonwood/Willow	101	2	2	4	9	14	16	15	16	12	7	3	1
2018	Marsh	34	0	0	2	4	5	6	6	6	4	1	0	0
2018	Mixed Veg Low	892	17	19	44	90	130	147	140	139	86	46	21	13
2018	Mixed Veg Medium	1,237	35	39	72	128	174	198	187	170	107	62	38	27
2018	Salt Cedar Dense	2,174	34	37	71	180	305	362	345	350	261	145	58	26
2018	USGS barren	0	0	0	0	0	0	0	0	0	0	0	0	0
2018	Sum	4,438	88	97	193	411	628	729	693	681	470	261	120	67
2019	Cottonwood/Willow	97	1	1	4	9	12	16	16	15	11	8	3	1
2019	Marsh	34	0	0	2	4	5	6	6	5	4	2	0	0
2019	Mixed Veg Low	846	14	14	42	86	115	142	142	129	83	49	20	10
2019	Mixed Veg Medium	1,170	30	29	69	122	154	191	190	157	104	67	36	21
2019	Salt Cedar Dense	2,073	28	27	69	172	268	351	350	325	252	156	55	20
2019	USGS barren	0	0	0	0	0	0	0	0	0	0	0	0	0
2019	Sum	4,220	73	71	186	393	554	706	704	631	454	282	114	52
2020	Cottonwood/Willow	100	1	2	3	8	15	16	17	15	12	7	3	1
2020	Marsh	35	0	0	2	4	6	6	6	6	4	1	0	0
2020	Mixed Veg Low	901	15	20	38	82	142	145	153	136	86	46	22	16
2020	Mixed Veg Medium	1,248	32	41	63	115	190	194	204	166	107	62	40	34
2020	Salt Cedar Dense	2,206	31	39	63	165	334	356	377	344	262	144	58	33
2020	USGS barren	0	0	0	0	0	0	0	0	0	0	0	0	0
2020	Sum	4,490	79	102	169	374	687	717	757	667	471	260	123	84

Year	Vegetation Type	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	Cottonwood/Willow	100	2	2	4	9	14	16	16	15	11	7	3	1
2021	Marsh	35	0	0	2	5	5	6	6	6	4	1	0	0
2021	Mixed Veg Low	896	18	20	46	92	132	143	148	135	82	44	23	13
2021	Mixed Veg Medium	1,248	37	41	74	131	178	193	198	165	103	60	42	26
2021	Salt Cedar Dense	2,178	36	39	75	184	310	353	365	339	250	140	62	25
2021	USGS barren	0	0	0	0	0	0	0	0	0	0	0	0	0
2021	Sum	4,457	93	102	201	421	639	711	733	660	450	252	130	65
Average	Cottonwood/Willow	99	1	2	4	9	14	16	16	15	11	7	3	1
Average	Marsh	34	0	0	2	4	5	6	6	6	4	1	0	0
Average	Mixed Veg Low	878	15	18	43	87	129	143	144	132	84	48	21	14
Average	Mixed Veg Medium	1,216	32	36	71	123	173	192	193	161	104	64	38	29
Average	Salt Cedar Dense	2,140	31	34	71	174	302	352	355	332	254	150	57	28
Average	USGS barren	0	0	0	0	0	0	0	0	0	0	0	0	0
Average	Sum	4,367	79	90	191	397	623	709	714	646	457	270	119	72

Table A4-2. Reach 3, Davis Dam to Parker Dam – Monthly and Annual LCRAS Riparian ET Losses by Vegetation Type in Acre-Feet

Year	Vegetation Type	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	Cottonwood/Willow	923	12	14	41	80	129	146	146	129	106	82	26	12
2017	Marsh	27,680	247	291	1,772	3,292	4,059	4,446	4,442	3,935	3,209	1,353	315	319
2017	Mixed Veg Low	29,068	440	529	1,624	2,889	4,271	4,710	4,701	4,082	2,763	1,803	664	592
2017	Mixed Veg Medium	18,000	401	479	1,185	1,822	2,561	2,820	2,809	2,228	1,534	1,083	536	542
2017	Salt Cedar Dense	40,153	491	584	1,501	3,271	5,681	6,570	6,570	5,820	4,763	3,225	1,010	667
2017	USGS barren	1,948	89	93	146	174	215	235	235	209	172	157	105	118
2017	Sum	117,772	1,680	1,990	6,269	11,528	16,916	18,927	18,903	16,403	12,547	7,703	2,656	2,250
2018	Cottonwood/Willow	971	16	18	38	86	135	156	149	151	113	71	29	9
2018	Marsh	29,130	327	359	1,616	3,544	4,218	4,761	4,541	4,601	3,408	1,173	343	239
2018	Mixed Veg Low	30,612	583	655	1,498	3,095	4,450	5,042	4,809	4,773	2,952	1,579	736	440
2018	Mixed Veg Medium	18,903	536	592	1,094	1,957	2,663	3,024	2,866	2,600	1,636	948	581	406
2018	Salt Cedar Dense	42,221	658	723	1,381	3,503	5,922	7,034	6,709	6,802	5,060	2,808	1,121	500
2018	USGS barren	2,039	117	115	135	189	224	252	241	244	183	137	113	89
2018	Sum	123,876	2,237	2,462	5,762	12,374	17,612	20,269	19,315	19,171	13,352	6,716	2,923	1,683
2019	Cottonwood/Willow	924	13	13	37	82	118	151	151	140	109	76	28	6
2019	Marsh	27,717	275	267	1,568	3,360	3,731	4,613	4,593	4,266	3,296	1,245	319	184
2019	Mixed Veg Low	29,054	485	485	1,445	2,952	3,930	4,881	4,863	4,423	2,862	1,696	691	341
2019	Mixed Veg Medium	17,871	451	440	1,055	1,862	2,352	2,928	2,899	2,409	1,591	1,021	547	316
2019	Salt Cedar Dense	40,238	547	528	1,334	3,345	5,199	6,821	6,793	6,311	4,893	3,021	1,066	380
2019	USGS barren	1,900	98	85	130	178	198	244	244	226	176	148	105	68
2019	Sum	117,704	1,869	1,818	5,569	11,779	15,528	19,638	19,543	17,775	12,927	7,207	2,756	1,295
2020	Cottonwood/Willow	982	14	19	33	78	147	154	163	148	114	71	30	11
2020	Marsh	29,298	295	383	1,425	3,161	4,613	4,685	4,960	4,525	3,416	1,169	359	307
2020	Mixed Veg Low	30,918	520	700	1,319	2,807	4,862	4,960	5,247	4,673	2,942	1,570	753	565
2020	Mixed Veg Medium	19,103	485	626	964	1,759	2,909	2,971	3,124	2,543	1,641	942	615	524
2020	Salt Cedar Dense	42,812	593	759	1,222	3,195	6,473	6,918	7,325	6,686	5,084	2,797	1,121	639
2020	USGS barren	2,064	105	120	120	168	244	248	263	241	183	135	122	115

Year	Vegetation Type	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	Sum	125,177	2,012	2,607	5,083	11,168	19,248	19,936	21,082	18,816	13,380	6,684	3,000	2,161
2021	Cottonwood/Willow	973	17	19	40	88	137	152	157	146	108	69	31	9
2021	Marsh	29,303	347	379	1,728	3,636	4,310	4,637	4,793	4,454	3,276	1,137	375	231
2021	Mixed Veg Low	30,740	619	699	1,560	3,164	4,536	4,904	5,074	4,617	2,824	1,524	789	430
2021	Mixed Veg Medium	19,038	569	625	1,132	1,999	2,714	2,939	3,024	2,517	1,571	918	636	394
2021	Salt Cedar Dense	42,145	692	757	1,449	3,563	5,999	6,830	7,061	6,563	4,846	2,714	1,191	480
2021	USGS barren	2,107	127	123	142	197	233	252	259	242	180	136	129	87
2021	Sum	124,306	2,371	2,602	6,051	12,647	17,929	19,714	20,368	18,539	12,805	6,498	3,151	1,631
Average	Cottonwood/Willow	955	14	17	38	83	133	152	153	143	110	74	29	9
Average	Marsh	28,626	298	336	1,622	3,399	4,186	4,628	4,666	4,356	3,321	1,215	342	256
Average	Mixed Veg Low	30,078	529	614	1,489	2,981	4,410	4,899	4,939	4,514	2,869	1,634	727	474
Average	Mixed Veg Medium	18,583	488	552	1,086	1,880	2,640	2,936	2,944	2,459	1,595	982	583	436
Average	Salt Cedar Dense	41,514	596	670	1,377	3,375	5,855	6,835	6,892	6,436	4,929	2,913	1,102	533
Average	USGS barren	2,012	107	107	135	181	223	246	248	232	179	143	115	95
Average	Sum	121,767	2,034	2,296	5,747	11,899	17,447	19,697	19,842	18,141	13,002	6,962	2,897	1,804

Table A4-3. Reach 4, Parker Dam to Imperial Dam – Monthly and Annual LCRAS Riparian ET Losses by Vegetation Type in Acre-Feet

Year	Vegetation Type	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	Cottonwood/Willow	191	2	3	8	17	26	32	31	28	21	16	5	2
2017	Marsh	53,718	460	588	3,408	6,582	7,577	8,957	8,851	7,833	5,896	2,488	535	543
2017	Mixed Veg Low	79,835	1,158	1,520	4,391	8,179	11,364	13,487	13,342	11,557	7,262	4,560	1,592	1,423
2017	Mixed Veg Medium	45,233	974	1,267	2,923	4,746	6,235	7,418	7,307	5,776	3,702	2,505	1,183	1,197
2017	Salt Cedar Dense	76,059	896	1,155	2,809	6,394	10,462	13,030	12,875	11,410	8,617	5,636	1,672	1,103
2017	USGS barren	3,460	153	176	255	327	376	444	438	389	294	255	167	186
2017	Sum	258,496	3,643	4,709	13,794	26,245	36,040	43,368	42,844	36,993	25,792	15,460	5,154	4,454
2018	Cottonwood/Willow	189	3	3	8	18	27	30	29	30	22	13	5	1
2018	Marsh	53,382	566	657	3,154	6,807	7,931	8,550	8,308	8,316	6,203	1,932	581	377
2018	Mixed Veg Low	79,337	1,424	1,689	4,150	8,445	11,896	12,885	12,523	12,258	7,649	3,668	1,761	989
2018	Mixed Veg Medium	44,929	1,197	1,406	2,770	4,899	6,528	7,085	6,848	6,138	3,897	2,032	1,294	835
2018	Salt Cedar Dense	75,410	1,103	1,293	2,637	6,602	10,928	12,427	12,083	12,100	9,049	4,533	1,879	776
2018	USGS barren	3,434	186	196	245	336	392	425	412	412	310	209	180	131
2018	Sum	256,681	4,479	5,244	12,964	27,107	37,702	41,402	40,203	39,254	27,130	12,387	5,700	3,109
2019	Cottonwood/Willow	192	2	3	8	17	25	31	32	30	22	16	5	1
2019	Marsh	53,652	460	535	3,085	6,577	7,270	8,620	8,922	8,590	6,260	2,413	573	347
2019	Mixed Veg Low	79,745	1,158	1,399	4,054	8,204	10,906	12,981	13,440	12,668	7,745	4,536	1,737	917
2019	Mixed Veg Medium	44,873	974	1,155	2,714	4,746	5,985	7,140	7,349	6,333	3,939	2,505	1,267	766
2019	Salt Cedar Dense	76,270	896	1,069	2,585	6,412	10,014	12,531	12,979	12,496	9,135	5,602	1,844	707
2019	USGS barren	3,401	154	160	238	327	359	428	441	425	314	258	176	121
2019	Sum	258,133	3,644	4,321	12,684	26,283	34,559	41,731	43,163	40,542	27,415	15,330	5,602	2,859
2020	Cottonwood/Willow	204	3	4	7	16	29	31	34	31	25	16	6	2
2020	Marsh	55,948	565	739	2,646	6,077	8,293	8,723	9,665	8,768	6,906	2,420	656	490
2020	Mixed Veg Low	83,734	1,420	1,925	3,442	7,678	12,419	13,117	14,537	12,877	8,472	4,621	1,950	1,276
2020	Mixed Veg Medium	47,420	1,210	1,585	2,308	4,422	6,842	7,231	7,954	6,439	4,339	2,559	1,446	1,085
2020	Salt Cedar Dense	80,688	1,120	1,447	2,205	6,065	11,493	12,699	14,060	12,750	10,114	5,720	2,016	999
2020	USGS barren	3,650	189	216	202	300	411	431	480	434	346	265	206	170

Year	Vegetation Type	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	Sum	271,644	4,507	5,916	10,810	24,558	39,487	42,232	46,730	41,299	30,202	15,601	6,280	4,022
2021	Cottonwood/Willow	204	3	4	8	18	29	33	33	30	23	15	6	2
2021	Marsh	56,526	558	732	3,160	6,705	8,319	9,284	9,201	8,500	6,546	2,315	686	520
2021	Mixed Veg Low	84,335	1,396	1,901	4,140	8,304	12,443	13,960	13,839	12,515	8,063	4,380	2,046	1,348
2021	Mixed Veg Medium	47,962	1,196	1,571	2,767	4,825	6,842	7,690	7,593	6,286	4,116	2,420	1,516	1,140
2021	Salt Cedar Dense	80,569	1,103	1,430	2,636	6,496	11,441	13,491	13,388	12,371	9,563	5,428	2,171	1,051
2021	USGS barren	3,699	186	216	245	333	411	460	457	421	327	251	212	180
2021	Sum	273,295	4,442	5,854	12,956	26,681	39,485	44,918	44,511	40,123	28,638	14,809	6,637	4,241
Average	Cottonwood/Willow	196	3	3	8	17	27	31	32	30	23	15	5	2
Average	Marsh	54,645	522	650	3,091	6,550	7,878	8,827	8,989	8,401	6,362	2,314	606	455
Average	Mixed Veg Low	81,397	1,311	1,687	4,035	8,162	11,806	13,286	13,536	12,375	7,838	4,353	1,817	1,191
Average	Mixed Veg Medium	46,083	1,110	1,397	2,696	4,728	6,486	7,313	7,410	6,194	3,999	2,404	1,341	1,005
Average	Salt Cedar Dense	77,799	1,024	1,279	2,574	6,394	10,868	12,836	13,077	12,225	9,296	5,384	1,916	927
Average	USGS barren	3,529	174	193	237	325	390	438	446	416	318	248	188	158
Average	Sum	263,650	4,143	5,209	12,642	26,175	37,455	42,730	43,490	39,642	27,835	14,717	5,875	3,737

Table A4-4. Reach 5, Imperial Dam to Northerly International Boundary – Monthly and Annual LCRAS Riparian ET Losses by Vegetation Type in Acre-Feet

Year	Vegetation Type	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	Cottonwood/Willow	1,286	18	21	57	110	163	201	216	197	147	108	33	15
2017	Marsh	18,985	181	212	1,201	2,223	2,511	3,012	3,222	2,949	2,181	889	194	210
2017	Mixed Veg Low	12,174	198	234	671	1,190	1,619	1,951	2,088	1,868	1,154	718	249	234
2017	Mixed Veg Medium	6,297	152	178	410	628	811	978	1,041	851	537	360	169	182
2017	Salt Cedar Dense	16,038	213	245	590	1,283	2,061	2,597	2,782	2,544	1,887	1,222	362	252
2017	USGS barren	908	44	46	67	81	91	109	117	107	80	69	44	53
2017	Sum	55,688	806	936	2,996	5,515	7,256	8,848	9,466	8,516	5,986	3,366	1,051	946
2018	Cottonwood/Willow	1,218	22	21	51	105	163	178	193	191	156	92	36	10
2018	Marsh	18,725	229	224	1,118	2,220	2,620	2,770	3,014	2,977	2,409	784	213	147
2018	Mixed Veg Low	11,967	249	249	624	1,183	1,685	1,789	1,948	1,883	1,274	639	278	166
2018	Mixed Veg Medium	6,195	192	188	382	627	846	899	973	861	593	321	184	129
2018	Salt Cedar Dense	15,773	267	259	551	1,276	2,136	2,385	2,594	2,562	2,079	1,084	402	178
2018	USGS barren	921	57	50	64	83	98	103	112	111	91	63	50	39
2018	Sum	54,799	1,016	991	2,790	5,494	7,548	8,124	8,834	8,585	6,602	2,983	1,163	669
2019	Cottonwood/Willow	1,261	17	20	54	110	162	198	203	198	150	104	35	10
2019	Marsh	18,402	166	197	1,116	2,215	2,472	2,923	3,001	2,926	2,202	839	200	145
2019	Mixed Veg Low	11,800	182	222	633	1,184	1,595	1,896	1,946	1,856	1,173	687	261	165
2019	Mixed Veg Medium	5,915	136	163	375	608	778	927	945	824	531	337	168	123
2019	Salt Cedar Dense	15,546	197	232	556	1,273	2,022	2,521	2,588	2,525	1,906	1,167	383	176
2019	USGS barren	913	43	45	67	85	94	112	114	112	85	70	48	38
2019	Sum	53,837	741	879	2,801	5,475	7,123	8,577	8,797	8,441	6,047	3,204	1,095	657
2020	Cottonwood/Willow	1,303	20	24	44	104	179	199	217	209	160	97	37	13
2020	Marsh	18,922	203	241	922	2,054	2,726	2,952	3,214	3,097	2,331	779	221	182
2020	Mixed Veg Low	12,146	217	271	516	1,111	1,755	1,904	2,075	1,951	1,228	634	281	203
2020	Mixed Veg Medium	6,129	165	198	306	571	859	936	1,011	870	559	313	187	154
2020	Salt Cedar Dense	16,080	235	280	456	1,206	2,229	2,537	2,762	2,660	2,015	1,079	400	221
2020	USGS barren	981	53	56	56	80	107	116	127	121	93	67	55	50

Year	Vegetation Type	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	Sum	55,561	893	1,070	2,300	5,126	7,855	8,644	9,406	8,908	6,386	2,969	1,181	823
2021	Cottonwood/Willow	1,271	19	25	55	112	168	192	200	196	150	101	41	12
2021	Marsh	18,547	192	244	1,150	2,267	2,568	2,838	2,968	2,895	2,202	823	239	161
2021	Mixed Veg Low	11,917	211	275	643	1,205	1,655	1,841	1,923	1,841	1,172	665	307	179
2021	Mixed Veg Medium	6,014	157	201	381	621	808	899	936	819	529	324	203	136
2021	Salt Cedar Dense	15,368	221	280	556	1,271	2,059	2,405	2,512	2,453	1,873	1,109	439	190
2021	USGS barren	999	52	59	72	92	104	115	120	118	90	71	61	45
2021	Sum	54,116	852	1,084	2,857	5,568	7,362	8,290	8,659	8,322	6,016	3,093	1,290	723
Average	Cottonwood/Willow	1,268	19	22	52	108	167	194	206	198	153	100	36	12
Average	Marsh	18,716	194	224	1,101	2,196	2,579	2,899	3,084	2,969	2,265	823	213	169
Average	Mixed Veg Low	12,001	211	250	617	1,175	1,662	1,876	1,996	1,880	1,200	669	275	189
Average	Mixed Veg Medium	6,110	160	186	371	611	820	928	981	845	550	331	182	145
Average	Salt Cedar Dense	15,761	227	259	542	1,262	2,101	2,489	2,648	2,549	1,952	1,132	397	203
Average	USGS barren	944	50	51	65	84	99	111	118	114	88	68	52	45
Average	Sum	54,800	862	992	2,749	5,436	7,429	8,497	9,032	8,554	6,207	3,123	1,156	764

Table A4-5. Sum of LCRAS Riparian ET Losses for Reaches 2 to 5, Hoover Dam to Northerly International Boundary – Monthly and Annual LCRAS Riparian ET Losses by Vegetation Type in Acre-Feet

Year	Vegetation Type	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2017	Cottonwood/Willow	2,493	33	39	110	215	331	394	408	367	285	214	67	30
2017	Marsh	100,417	888	1,091	6,383	12,101	14,152	16,421	16,521	14,722	11,290	4,732	1,044	1,072
2017	Mixed Veg Low	121,923	1,809	2,298	6,733	12,342	17,378	20,285	20,268	17,626	11,260	7,134	2,524	2,266
2017	Mixed Veg Medium	70,705	1,553	1,955	4,595	7,315	9,774	11,400	11,341	9,001	5,873	4,019	1,923	1,956
2017	Salt Cedar Dense	134,315	1,625	2,014	4,977	11,116	18,496	22,535	22,565	20,074	15,512	10,249	3,096	2,056
2017	USGS barren	6,316	286	315	468	582	682	788	790	705	546	481	316	357
2017	Sum	436,169	6,194	7,712	23,266	43,671	60,813	71,823	71,893	62,495	44,766	26,829	8,970	7,737
2018	Cottonwood/Willow	2,479	43	44	101	218	339	380	386	388	303	183	73	21
2018	Marsh	101,271	1,122	1,240	5,890	12,575	14,774	16,087	15,869	15,900	12,024	3,890	1,137	763
2018	Mixed Veg Low	122,808	2,273	2,612	6,316	12,813	18,161	19,863	19,420	19,053	11,961	5,932	2,796	1,608
2018	Mixed Veg Medium	71,264	1,960	2,225	4,318	7,611	10,211	11,206	10,874	9,769	6,233	3,363	2,097	1,397
2018	Salt Cedar Dense	135,578	2,062	2,312	4,640	11,561	19,291	22,208	21,731	21,814	16,449	8,570	3,460	1,480
2018	USGS barren	6,394	360	361	444	608	714	780	765	767	584	409	343	259
2018	Sum	439,794	7,820	8,794	21,709	45,386	63,490	70,524	69,045	67,691	47,554	22,347	9,906	5,528
2019	Cottonwood/Willow	2,474	33	37	103	218	317	396	402	383	292	204	71	18
2019	Marsh	99,805	901	999	5,771	12,156	13,478	16,162	16,522	15,787	11,762	4,499	1,092	676
2019	Mixed Veg Low	121,445	1,839	2,120	6,174	12,426	16,546	19,900	20,391	19,076	11,863	6,968	2,709	1,433
2019	Mixed Veg Medium	69,829	1,591	1,787	4,213	7,338	9,269	11,186	11,383	9,723	6,165	3,930	2,018	1,226
2019	Salt Cedar Dense	134,127	1,668	1,856	4,544	11,202	17,503	22,224	22,710	21,657	16,186	9,946	3,348	1,283
2019	USGS barren	6,214	295	290	435	590	651	784	799	763	575	476	329	227
2019	Sum	433,894	6,327	7,089	21,240	43,930	57,764	70,652	72,207	67,389	46,843	26,023	9,567	4,863
2020	Cottonwood/Willow	2,589	38	49	87	206	370	400	431	403	311	191	76	27
2020	Marsh	104,203	1,063	1,363	4,995	11,296	15,638	16,366	17,845	16,396	12,657	4,369	1,236	979
2020	Mixed Veg Low	127,699	2,172	2,916	5,315	11,678	19,178	20,126	22,012	19,637	12,728	6,871	3,006	2,060
2020	Mixed Veg Medium	73,900	1,892	2,450	3,641	6,867	10,800	11,332	12,293	10,018	6,646	3,876	2,288	1,797
2020	Salt Cedar Dense	141,786	1,979	2,525	3,946	10,631	20,529	22,510	24,524	22,440	17,475	9,740	3,595	1,892
2020	USGS barren	6,695	347	392	378	548	762	795	870	796	622	467	383	335

Year	Vegetation Type	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	Sum	456,872	7,491	9,695	18,362	41,226	67,277	71,529	77,975	69,690	50,439	25,514	10,584	7,090
2021	Cottonwood/Willow	2,548	41	50	107	227	348	393	406	387	292	192	81	24
2021	Marsh	104,411	1,097	1,355	6,040	12,613	15,202	16,765	16,968	15,855	12,028	4,276	1,300	912
2021	Mixed Veg Low	127,888	2,244	2,895	6,389	12,765	18,766	20,848	20,984	19,108	12,141	6,613	3,165	1,970
2021	Mixed Veg Medium	74,262	1,959	2,438	4,354	7,576	10,542	11,721	11,751	9,787	6,319	3,722	2,397	1,696
2021	Salt Cedar Dense	140,260	2,052	2,506	4,716	11,514	19,809	23,079	23,326	21,726	16,532	9,391	3,863	1,746
2021	USGS barren	6,805	365	398	459	622	748	827	836	781	597	458	402	312
2021	Sum	456,174	7,758	9,642	22,065	45,317	65,415	73,633	74,271	67,644	47,909	24,652	11,208	6,660
Average	Cottonwood/Willow	2,517	38	44	102	217	341	393	407	386	297	197	74	24
Average	Marsh	102,021	1,014	1,210	5,816	12,148	14,649	16,360	16,745	15,732	11,952	4,353	1,162	880
Average	Mixed Veg Low	124,353	2,067	2,568	6,185	12,405	18,006	20,204	20,615	18,900	11,991	6,704	2,840	1,867
Average	Mixed Veg Medium	71,992	1,791	2,171	4,224	7,341	10,119	11,369	11,528	9,660	6,247	3,782	2,145	1,614
Average	Salt Cedar Dense	137,213	1,877	2,243	4,565	11,205	19,126	22,511	22,971	21,542	16,431	9,579	3,472	1,691
Average	USGS barren	6,485	331	351	437	590	711	795	812	762	585	458	355	298
Average	Sum	444,581	7,118	8,586	21,328	43,906	62,952	71,632	73,078	66,982	47,502	25,073	10,047	6,376

Table A4-6. Sum of LCRAS Riparian Acres for Reaches 2 to 5, Hoover Dam to Northerly International Boundary

Year	Vegetation Type	Total	Reach 2	Reach 3	Reach 4	Reach 5
2017	Cottonwood/Willow	486	19	184	38	246
2017	Marsh	16,987	6	4,789	9,047	3,146
2017	Mixed Veg Low	44,359	314	10,767	28,952	4,327
2017	Mixed Veg Medium	26,189	443	6,769	16,702	2,275
2017	Salt Cedar Dense	36,639	573	11,120	20,682	4,264
2017	USGS Barren	7,137	0	2,220	3,919	998
2017	Sum	131,797	1,354	35,849	79,339	15,255
2018	Cottonwood/Willow	477	19	184	38	237
2018	Marsh	17,006	6	4,789	9,055	3,156
2018	Mixed Veg Low	44,365	314	10,767	28,955	4,329
2018	Mixed Veg Medium	26,195	443	6,769	16,703	2,281
2018	Salt Cedar Dense	36,642	573	11,120	20,684	4,265
2018	USGS Barren	7,169	0	2,220	3,919	1,028
2018	Sum	131,854	1,354	35,849	79,354	15,296
2019	Cottonwood/Willow	486	19	184	38	246
2019	Marsh	16,961	6	4,789	9,050	3,116
2019	Mixed Veg Low	44,327	314	10,767	28,954	4,292
2019	Mixed Veg Medium	26,111	443	6,769	16,702	2,197
2019	Salt Cedar Dense	36,596	573	11,120	20,683	4,219
2019	USGS Barren	7,180	0	2,220	3,919	1,040
2019	Sum	131,661	1,354	35,849	79,347	15,111
2020	Cottonwood/Willow	486	19	184	38	246
2020	Marsh	16,958	6	4,789	9,047	3,116
2020	Mixed Veg Low	44,231	314	10,764	28,882	4,271
2020	Mixed Veg Medium	26,093	443	6,766	16,687	2,197
2020	Salt Cedar Dense	36,568	573	11,113	20,676	4,206
2020	USGS Barren	7,209	0	2,220	3,919	1,070
2020	Sum	131,545	1,354	35,835	79,250	15,106

2021	Cottonwood/Willow	486	19	184	38	246
2021	Marsh	16,961	6	4,789	9,050	3,116
2021	Mixed Veg Low	44,242	314	10,757	28,882	4,289
2021	Mixed Veg Medium	26,084	443	6,757	16,687	2,197
2021	Salt Cedar Dense	36,471	573	11,076	20,676	4,146
2021	USGS Barren	7,295	0	2,273	3,919	1,103
2021	Sum	131,539	1,354	35,835	79,252	15,097
Average	Cottonwood/Willow	484	19	184	38	244
Average	Marsh	16,974	6	4,789	9,050	3,130
Average	Mixed Veg Low	44,305	314	10,764	28,925	4,302
Average	Mixed Veg Medium	26,135	443	6,766	16,696	2,230
Average	Salt Cedar Dense	36,583	573	11,110	20,680	4,220
Average	USGS Barren	7,198	0	2,231	3,919	1,048
Average	Sum	131,679	1,354	35,843	79,308	15,173