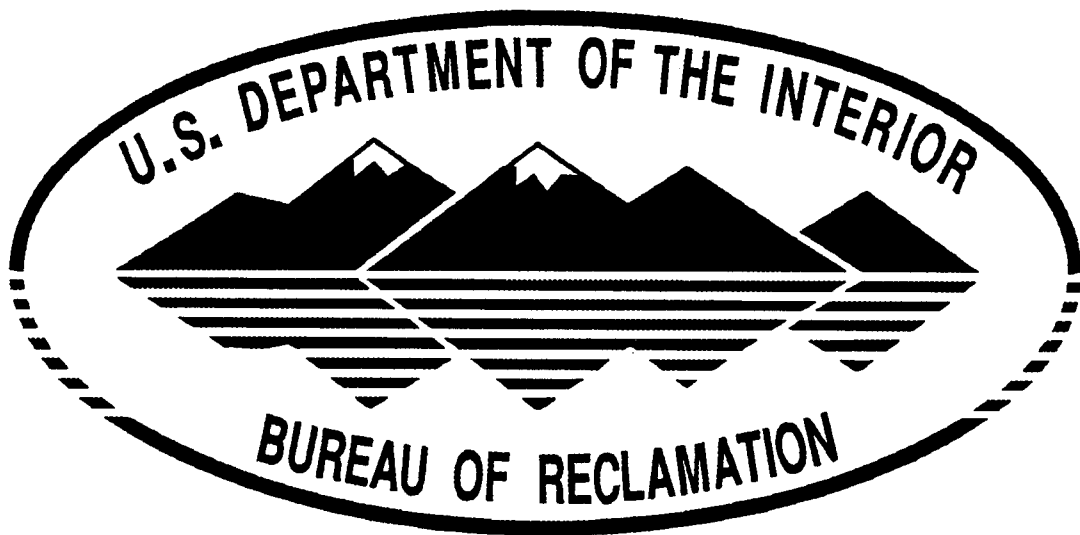


COMPILATION OF RECORDS IN  
ACCORDANCE WITH ARTICLE V. OF THE  
DECREE OF THE SUPREME COURT OF  
THE UNITED STATES IN  
ARIZONA v. CALIFORNIA DATED MARCH 9, 1964

CALENDAR YEAR 1998



Bureau of Reclamation  
Boulder Canyon Operations Office  
Lower Colorado Region  
Boulder City, Nevada

COMPILATION OF RECORDS IN  
ACCORDANCE WITH ARTICLE V. OF THE  
DECREE OF THE SUPREME COURT OF  
THE UNITED STATES IN  
ARIZONA v. CALIFORNIA DATED MARCH 9, 1964

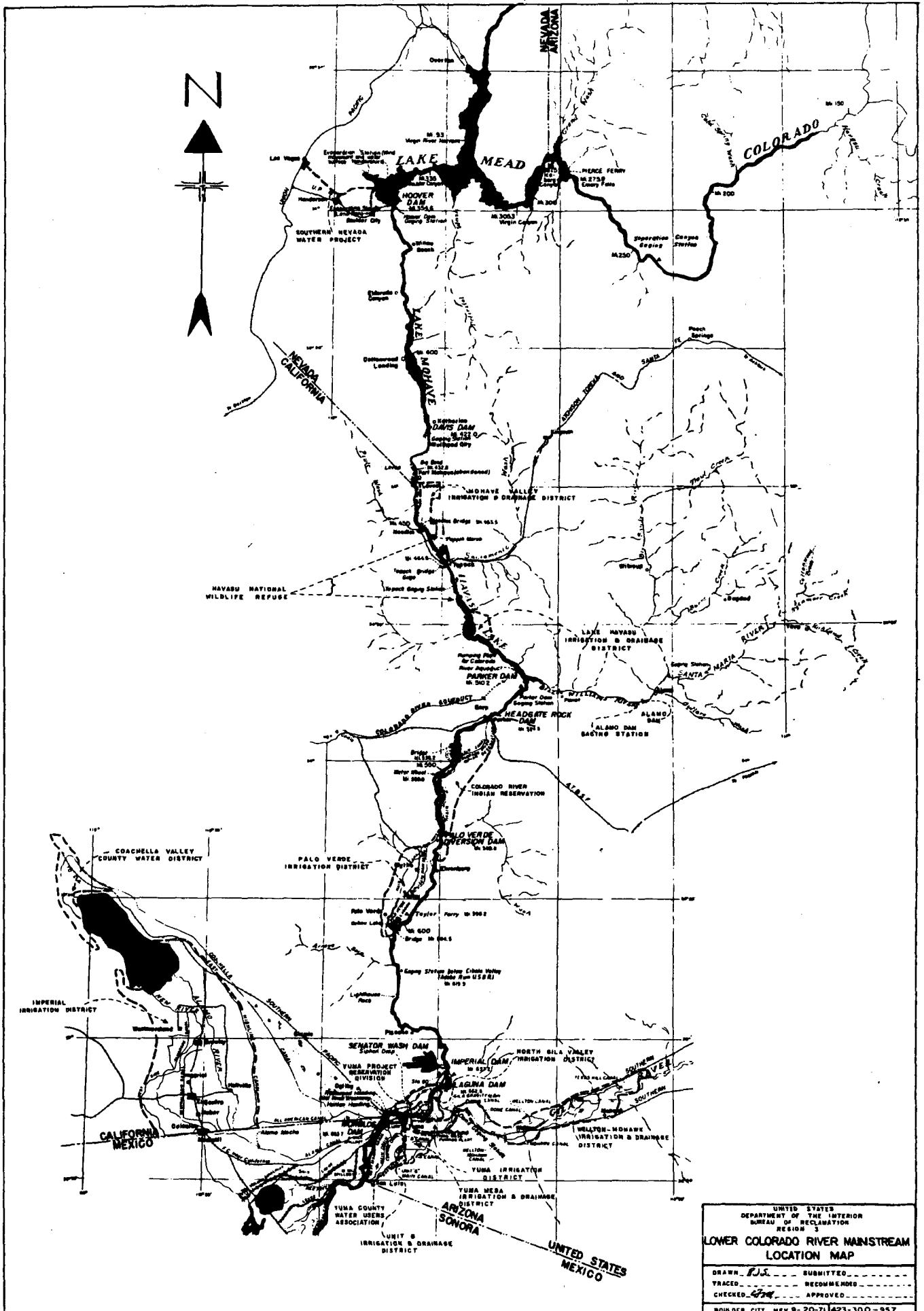
CALENDAR YEAR 1998

Published by:  
Bureau of Reclamation  
Boulder Canyon Operations Office  
September 1999

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UNITED STATES  
 DEPARTMENT OF THE INTERIOR  
 BUREAU OF RECLAMATION  
 REGION 3  
**LOWER COLORADO RIVER MAINSTREAM  
 LOCATION MAP**

DRAWN <i>R.S.</i>	SUBMITTED
TRACED	RECOMMENDED
CHECKED <i>4/24</i>	APPROVED

BOULDER CITY, NEV. 9-20-71 423-300-957

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USE BY STATE, UNMEASURED RETURNS ESTIMATE, AND RESERVOIR CONTENTS  
CALENDAR YEAR 1998

09/07/99

(THOUSAND ACRE-FEET)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
<b>WATER USE SUMMARY</b>													
ARIZONA	202.2	185.9	253.4	266.9	309.1	305.1	235.7	179.9	138.0	148.4	186.8	155.3	2566.7
CALIFORNIA	288.1	187.1	426.7	486.3	520.7	524.4	605.3	532.3	435.6	420.4	322.1	296.1	5045.2
NEVADA	16.6	9.3	14.7	18.5	23.2	24.9	29.7	28.9	18.0	24.1	19.2	18.3	245.3
STATES SUBTOTAL	507.0	382.3	694.7	771.7	852.9	854.5	870.7	741.0	591.6	592.9	528.1	469.7	7857.2
UNMEASURED RETURNS 1/ TOTAL STATES	507.0	382.3	694.7	771.7	852.9	854.5	870.7	741.0	591.6	592.9	528.1	469.7	7857.2
<b>MEXICO IN SATISFACTION OF TREATY</b>													
MEXICO IN SATISFACTION OF TREATY	645.0	764.4	538.3	286.9	233.1	205.8	212.1	153.7	314.0	253.9	381.1	730.2	4718.4
MEXICO BYPASS PURSUANT TO MINUTE 242	10.6	12.7	11.3	6.6	7.5	8.8	6.9	6.6	8.0	12.1	11.2	11.4	113.8
<b>USE TOTAL</b>	<b>1162.6</b>	<b>1159.4</b>	<b>1244.3</b>	<b>1065.2</b>	<b>1093.5</b>	<b>1069.1</b>	<b>1089.8</b>	<b>901.2</b>	<b>913.7</b>	<b>858.9</b>	<b>920.4</b>	<b>1211.3</b>	<b>12689.4</b>
<b>END OF MONTH ACTIVE CONTENTS:</b>													
LAKE POWELL	21103	20630	20273	20746	22645	23728	23566	22866	22404	22198	22077	21654	
LAKE MEAD	25068	25014	25046	24813	24638	24673	24766	25052	25126	25278	25128	24781	
LAKE MOHAVE	1682	1658	1656	1728	1738	1695	1683	1704	1729	1650	1611	1534	
LAKE HAVASU	548	574	542	581	616	556	585	589	565	536	567	607	
LOWER BASIN TOTAL STORAGE	27297	27246	27244	27122	26992	26924	27034	27345	27421	27463	27306	26923	
<b>USE ABOVE HOOVER DAM:</b>													
ARIZONA	0.007	0.003	0.007	0.012	0.014	0.016	0.019	0.015	0.013	0.014	0.008	0.005	0.133
NEVADA	15.556	8.439	13.630	17.890	22.440	23.597	27.998	27.222	16.595	22.689	17.788	16.556	230.400
TOTAL USE	15.563	8.442	13.637	17.902	22.454	23.613	28.017	27.237	16.608	22.703	17.796	16.561	230.533
<b>USE BELOW PARKER DAM:</b>													
ARIZONA	28.0	17.4	106.7	140.0	144.0	144.1	166.4	137.5	104.1	100.1	54.4	41.8	1184.4
CALIFORNIA	177.0	113.1	360.8	432.6	453.2	433.2	490.3	415.7	330.0	318.6	213.1	191.4	3928.9
MEXICO	655.6	777.1	549.6	293.5	240.5	214.6	219.0	160.2	322.1	266.0	392.3	741.6	4832.2
TOTAL USE	860.6	907.6	1017.1	866.1	837.8	791.9	875.7	713.3	756.2	684.7	659.7	974.8	9945.5

1/ Estimated total unmeasured return flows of 236,632 acre-feet reduces total Lower Basin use. Estimated unmeasured return by state is 143,842 af in Arizona, 91,996 af in California, and 794 af in Nevada.

2/ The 1998 Annual Operating Plan designated 1998 as a surplus year, including 200,000 acre-feet of surplus to Mexico.

Flood control releases were made in January, February, March and April. Space Building releases were made in September, October, November and December.

ARTICLE V. OF THE DECREE OF THE SUPREME COURT  
OF THE UNITED STATES  
IN ARIZONA v. CALIFORNIA DATED MARCH 9, 1964

Article V.

V. The United States shall prepare and maintain, or provide for the preparation and maintenance of, and shall make available, annually and at such shorter intervals as the Secretary of the Interior shall deem necessary or advisable, for inspection by interested persons at all reasonable times and at a reasonable place or places, complete, detailed and accurate records of:

(A) Releases of water through regulatory structures controlled by the United States;

(B) Diversions of water from the mainstream, return flow of such water to the stream as is available for consumptive use in the United States or in satisfaction of the Mexican treaty obligation, and consumptive use of such water. These quantities shall be stated separately as to each diverter from the mainstream, each point of diversion, and each of the States of Arizona, California and Nevada;

(C) Releases of mainstream water pursuant to orders therefor but not diverted by the party ordering the same, and the quantity of such water delivered to Mexico in satisfaction of the Mexican Treaty or diverted by others in satisfaction of rights decreed herein. These quantities shall be stated separately as to each diverter from the mainstream, each point of diversion, and each of the States of Arizona, California and Nevada;

(D) Deliveries to Mexico of water in satisfaction of the obligations of Part III of the Treaty of February 3, 1944, and separately stated, water passing to Mexico in excess of treaty requirements;

(E) Diversions of water from the mainstream of the Gila and San Francisco Rivers and the consumptive use of such water, for the benefit of the Gila National Forest.

RECORDS OF RELEASES OF WATER THROUGH  
REGULATORY STRUCTURES IN ACCORDANCE WITH  
ARTICLE V(A) OF THE DECREE OF  
THE SUPREME COURT OF THE UNITED STATES  
IN ARIZONA v. CALIFORNIA DATED MARCH 9, 1964

CALENDAR YEAR 1998



The following tabulations for calendar year 1998 show final records of releases of water through regulatory structures controlled by the United States. At Hoover, Davis, Parker, Palo Verde, Imperial, and Laguna Dams, the records are furnished by the U.S. Geological Survey based on measurements at or below the structures.

The record of river flow through Headgate Rock Dam was computed using the record of flow at the gaging station "Colorado River below Parker Dam, Arizona-California," and deducting from it the record of flow at the gaging station "Divisions for Colorado River Indian Reservation Main Canal near Parker, Arizona." The diversions are made at Headgate Rock Dam.

RELEASES OF WATER THROUGH REGULATORY STRUCTURES  
CONTROLLED BY THE UNITED STATES  
CALENDAR YEAR 1998

09/07/99

(THOUSAND ACRE-FEET)

STRUCTURE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
GLEN CANYON DAM	1186	1081	1182	797	898	1073	1236	1296	1035	932	820	921	12456.5
HOOVER DAM	1229	1179	1208	1121	1135	987	1121	934	962	721	951	1227	12774.7
DAVIS DAM	1230	1236	1189	1042	1111	1038	1145	910	945	796	989	1309	12940.3
PARKER DAM	986	976	1005	827	861	856	932	728	834	662	702	1013	10380.0
HEADGATE ROCK DAM 1/	966	960	953	765	791	786	855	658	791	619	676	982	9800.2
PALO VERDE DAM	902	884	852	703	673	638	685	558	655	559	592	868	8567.4
IMPERIAL DAM	169	413	334	153	48	27	28	43	43	29	56	191	1531.4
DIVERSION TO MITTRY LAKE FROM GILA MAIN CANAL	1	1	1	1	1	1	1	1	1	1	1	1	11.2
SUM IMPERIAL DAM + DIVERSION TO MITTRY LAKE	170	413	335	154	49	27	29	44	44	30	56	192	1542.6
LAGUNA DAM	170	425	360	156	48	31	33	48	52	38	67	214	1640.3

1/ Computed as Parker Dam release less diversion at Headgate Rock Dam.

RECORDS OF DIVERSIONS, RETURN FLOWS, AND CONSUMPTIVE USE  
IN ACCORDANCE WITH ARTICLE V(B) OF THE DECREE OF  
THE SUPREME COURT OF THE UNITED STATES IN  
ARIZONA v. CALIFORNIA  
DATED MARCH 9, 1964

CALENDAR YEAR 1998

The following tabulations for calendar year 1998 show final records of diversions of water from the mainstream of the Colorado River, return flow of such water to the mainstream and consumptive use of such water. The records were furnished by the U.S. Geological Survey, International Boundary and Water Commission, Bureau of Indian Affairs, Bureau of Reclamation (Reclamation), National Park Service, U.S. Fish and Wildlife Service, and water user agencies. Diversions from the All-American Canal and Gila Gravity Main Canal at Imperial Dam were assigned to each user by adding each user's proportional share of the total canal losses to the delivery taken by each user at its turnout from the canal.

The tabulations also show quantities of water pumped from the mainstream or from wells in the Colorado River flood plain and accounting surface. Amounts diverted by pumping were determined by: (1) For most electric pumps, diversions were computed on a monthly basis from power records and a "kilowatt hour per acre-foot factor" that was determined by discharge measurement; (2) For pumps other than electric and some electric pumps, a consumptive use factor of 6 acre-feet per irrigated acre of land per year was used.

Consumptive use estimated for individual diverters may be over or under estimated. Reclamation is continuing the development of the Lower Colorado River Accounting System (LCRAS) to refine estimates of consumptive use.

Tabulations for calendar year 1998 include determinations of the unmeasured Colorado River return flows to Lake Mead from Las Vegas Wash which accrue to the State of Nevada and a portion of the unmeasured return flows from the Yuma Mesa which are credited to the State of Arizona.

No person or entity is entitled to divert or use Colorado River water without an entitlement. An entitlement is an authorization to beneficially use Colorado River water pursuant to: (1) a right decreed by the Supreme Court, (2) a contract with the United States through the Secretary of the Interior (Secretary), or (3) a Secretarial reservation of water. The recording of diversions, return flows, or consumptive use in this tabulation is for statistical use only and is not to be interpreted as an entitlement, indication that the use is authorized, or imply that return flow credits are associated with a specific entitlement.

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW  
AND CONSUMPTIVE USE OF SUCH WATER  
CALENDAR YEAR 1998  
STATE OF ARIZONA

09/07/99

(ACRE-FEET)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
LAKE MEAD NAT'L RECREATION, AZ. DIVERSIONS FROM LAKE MEAD (TEMPLE BAR)	DIVERSION RETURNS CONSUMPTIVE USE	7	3	7	12	14	16	19	15	13	14	8	5	133
LAKE MEAD NAT'L RECREATION, AZ. DIVERSIONS FROM LAKE MOHAVE (KATHERINE, WILLOW BEACH)	DIVERSION RETURNS CONSUMPTIVE USE	28	31	26	30	38	55	64	54	54	44	36	26	486
L.C.R.D. PROJECT (DAVIS DAM) DIVERSION AT DAVIS DAM	DIVERSION RETURNS CONSUMPTIVE USE	3	5	2	2	2	3	4	3	4	1	1	1	32
BULLHEAD CITY PUMPED FROM WELLS	DIVERSION	492	365	467	573	653	903	830	604	704	634	559	538	7322
DIV. AT DAVIS DAM, MOHAVE CO. PARKS	DIVERSION RETURNS CONSUMPTIVE USE	3	2	3	7	7	14	13	17	12	12	11	3	104
MOHAVE WATER CONSERVATION PUMPED FROM WELLS	DIVERSION RETURNS CONSUMPTIVE USE	495	367	470	580	660	917	843	621	716	646	570	541	7426
BROOKE WATER, (WAS CONSOLITATED W U) PUMPED FROM RIVER	DIVERSION RETURNS CONSUMPTIVE USE	48	34	39	45	46	50	73	61	67	53	38	51	606
MOHAVE VALLEY I. & D. DISTRICT PUMPED FROM WELLS	DIVERSION RETURNS CONSUMPTIVE USE	25	22	26	29	36	39	46	43	37	31	25	24	382
FORT MOHAVE INDIAN RESERVATION 14 PUMPS AND WELLS IN FLOOD PLAIN	DIVERSION 2/3/4 RETURNS CONSUMPTIVE USE	1283	289	2611	2077	2779	4476	5453	4881	3179	2375	1397	868	31668
GOLDEN SHORES WATER CONSERVATION DIST PUMPED FROM WELLS	DIVERSION 2/ RETURNS CONSUMPTIVE USE	784	1321	5776	6927	10088	10598	11106	6188	4139	1465	1943	1553	61888
HAVASU NATIONAL WILDLIFE REFUGE INLET-NW NE NW SEC 33 T9N RSSW G&SRM WELL 8N/23E-15Aa (TOPOCK MARSH)	DIVERSION 2/ RETURNS CONSUMPTIVE USE	27	21	36	39	48	58	64	61	48	40	29	28	501
LAKE HAVASU CITY DISTRICT PUMPED FROM WELLS	DIVERSION 8/ DIVERSION 2/ RETURNS CONSUMPTIVE USE	1920	1530	5970	4844	7929	7383	8416	5300	6164	3524	2160	827	55967
	DIVERSION 2/ RETURNS CONSUMPTIVE USE	3	3	4	5	6	7	8	7	6	5	3	3	60
	RETURNS CONSUMPTIVE USE	0	0	828	4650	4250	2570	2960	1170	208	1490	1260	0	19386
	CONSUMPTIVE USE	1923	1533	5146	199	3685	4820	5464	4137	5962	2039	903	830	36641
	DIVERSION RETURNS CONSUMPTIVE USE	1457	656	933	1059	1309	1379	1599	1507	1055	1304	816	723	13797

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW  
AND CONSUMPTIVE USE OF SUCH WATER  
CALENDAR YEAR 1998  
STATE OF ARIZONA

09/07/99

(ACRE-FEET)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
CENTRAL ARIZONA PROJECT PUMPED FROM LAKE HAVASU	DIVERSION RETURNS CONSUMPTIVE USE	168153	164257	131538	115892	146274	138550	44500	24813	18552	40236	126619	108849	1228233
TOWN OF PARKER PUMPED FROM RIVER	DIVERSION	0	0	0	0	0	0	0	0	0	0	0	0	0
1 WELL-NW NW NW SEC 7 T9N R19W G&SRM	DIVERSION 10/ RETURNS CONSUMPTIVE USE	59	45	68	80	101	109	137	120	100	88	62	55	1025
		0	0	0	0	0	0	0	0	0	0	0	0	0
		59	45	68	80	101	109	137	120	100	88	62	55	1025
COLORADO RIVER INDIAN RESERVATION DIVERSION AT HEADGATE ROCK DAM	DIVERSION	20590	15970	52190	61740	70300	69100	77070	70170	43120	42900	25250	31450	579850
1 WELL (B-04-22, S14 bbd)& TOWN OF PARKER	DIVERSION 3/4/10/ RETURNS CONSUMPTIVE USE	326	597	290	452	1524	1427	1477	2094	2034	1177	297	377	12074
		17930	14165	17057	20299	23764	22413	23381	22320	21492	21126	18511	17798	240256
		2986	2402	35423	41893	48060	48114	55166	49944	23662	22951	7036	14029	351668
EHRENBURG IMPROVEMENT ASSN. 1 PUMP SW SEC 3 T3N R22W G&SRM	DIVERSION RETURNS CONSUMPTIVE USE	23	18	31	34	41	50	54	52	41	34	24	24	427
CIBOLA VALLEY IRRIGATION DISTRICT 3 PUMPS SEC'S 20, 21 & 26T1N R23W	DIVERSION RETURNS CONSUMPTIVE USE	1543	1236	2108	2276	2782	3376	3683	3544	2785	2334	1656	1630	28952
CIBOLA NATIONAL WILDLIFE REFUGE 4 PUMPS IN T01S R23W	DIVERSION RETURNS CONSUMPTIVE USE	333	154	241	538	987	945	1036	511	0	716	653	322	6435
IMPERIAL NATIONAL WILDLIFE REFUGE 2 WELLS SEC 13 T5S R22W G&SRM	DIVERSION 2/4/ RETURNS CONSUMPTIVE USE	373	299	510	550	673	816	890	857	673	564	400	394	7000
YUMA PROVING GROUND DIVERSION AT IMPERIAL DAM	DIVERSION	1	3	1	0	1	6	0	0	9	7	0	7	35
WELLS W, X,Y,Z	DIVERSION 2/ RETURNS CONSUMPTIVE USE	42	34	58	63	76	93	101	97	77	64	46	45	795
		0	0	0	0	0	0	0	0	0	0	0	0	0
		43	37	59	63	77	99	101	97	86	71	46	52	830
STURGES DIVERSION AT IMPERIAL DAM	DIVERSION	540	202	1153	838	1401	1280	1515	899	507	1114	1396	979	11824
(WARREN ACT)	RETURNS CONSUMPTIVE USE	12	14	54	-51	-31	-3	38	16	2	9	1	61	122
		528	188	1099	889	1432	1283	1477	883	505	1105	1395	918	11702
WELLTON MOHAWK I. & D. DISTRICT DIVERSION AT IMPERIAL DAM	DIVERSION	16826	14601	37347	45447	38939	46901	50683	38597	37610	29446	24333	19299	400029
	GGMC RETURN	414	1151	1966	-3134	-974	-130	1427	751	186	276	29	1337	3299
	DOMES RETURN	1634	1617	1593	1130	210	192	174	85	168	201	510	451	7965
	MOD RETURN 9/ RETURNS, TOTAL	7980	8160	8180	8010	7210	8370	6870	7200	7690	8690	9720	10330	98410
	CONSUMPTIVE USE	10028	10928	11739	6006	6446	8432	8471	8036	8044	9167	10259	12118	109674
		6798	3673	25608	39441	32493	38469	42212	30561	29566	20279	14074	7181	290355

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW  
AND CONSUMPTIVE USE OF SUCH WATER  
CALENDAR YEAR 1998  
STATE OF ARIZONA

09/07/99

(ACRE-FEET)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
CITY OF YUMA														
DIVERSION AT IMPERIAL DAM (AAC)	DIVERSION	1768	1428	1780	1848	2362	2404	2833	2770	2384	2236	1898	1783	25494
DIVERSION AT IMPERIAL DAM (GILA)	DIVERSION	0	0	0	36	37	62	72	72	54	51	37	29	450
	RETURNS	914	795	728	700	750	771	828	805	903	815	728	733	9470
	CONSUMPTIVE USE	854	633	1052	1184	1649	1695	2077	2037	1535	1472	1207	1079	16474
MARINE CORPS AIR STATION (YUMA)														
DIVERSION AT IMPERIAL DAM	DIVERSION	60	56	117	130	187	235	289	274	217	148	101	62	1876
	RETURNS													
	CONSUMPTIVE USE													
SOUTHERN PACIFIC COMPANY														
DIVERSION AT IMPERIAL DAM	DIVERSION	4	4	4	4	4	4	4	4	4	4	4	4	48
	RETURNS													
	CONSUMPTIVE USE													
YUMA MESA FRUIT GROWERS ASSN.														
DIVERSION AT IMPERIAL DAM	DIVERSION	1	1	1	1	1	1	1	1	1	1	1	1	12
	RETURNS													
	CONSUMPTIVE USE													
UNIVERSITY OF ARIZONA														
DIVERSION AT IMPERIAL DAM (WARREN ACT)	DIVERSION	57	45	89	100	72	126	116	111	69	78	125	56	1044
	RETURNS													
	CONSUMPTIVE USE													
YUMA UNION HIGH SCHOOL														
DIVERSION AT IMPERIAL DAM	DIVERSION	5	4	10	12	21	30	32	25	19	21	11	36	226
	RETURNS													
	CONSUMPTIVE USE													
CAMILLE, ALEC. JR.														
DIVERSION AT IMPERIAL DAM (WARREN ACT)	DIVERSION	0	2	0	0	0	0	0	0	0	0	0	0	2
	RETURNS													
	CONSUMPTIVE USE													
DESERT LAWN MEMORIAL														
DIVERSION AT IMPERIAL DAM	DIVERSION	0	0	31	36	55	64	62	66	62	49	21	2	448
	RETURNS													
	CONSUMPTIVE USE													
NORTH GILA VALLEY IRRIGATION DISTRICT														
DIVERSION AT IMPERIAL DAM 7/	DIVERSION	2225	1648	4886	4385	5656	5160	4164	2710	4064	4979	3224	2510	45611
	RETURNS	1523	1162	2627	1979	2815	2824	2520	1647	2197	2797	2191	1797	26079
	CONSUMPTIVE USE	702	486	2259	2406	2841	2336	1644	1063	1867	2182	1033	713	19532
YUMA IRRIGATION DISTRICT														
DIVERSION AT IMPERIAL DAM 7/	DIVERSION	2728	1990	6172	5531	6690	5329	4765	4253	6834	7037	4758	3480	59567
PUMPED FROM PRIVATE WELLS	DIVERSION	10	15	152	242	129	246	307	158	305	323	133	149	2169
	RETURNS	544	548	1398	453	901	890	974	825	1215	1332	955	965	11000
	CONSUMPTIVE USE	2194	1457	4926	5320	5918	4685	4098	3586	5924	6028	3936	2664	50736
YUMA MESA I. & D. DISTRICT														
DIVERSION AT IMPERIAL DAM 7/	DIVERSION	8577	5611	17208	16398	21185	25468	31209	28941	21688	16337	13060	10544	216226
	RETURNS	2815	2763	3629	1109	1934	2510	3726	3574	2716	4034	3560	4722	37092
	CONSUMPTIVE USE	5762	2848	13579	15289	19251	22958	27483	25367	18972	12303	9500	5822	179134

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW  
AND CONSUMPTIVE USE OF SUCH WATER  
CALENDAR YEAR 1998  
STATE OF ARIZONA

09/07/99

(ACRE-FEET)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
UNIT "B" I. & D. DISTRICT														
DIVERSION AT IMPERIAL DAM 77E/	DIVERSION	1083	911	2117	2367	2473	2860	4032	3372	2654	2438	1743	1320	27370
	RETURNS	482	479	575	247	385	460	601	585	471	706	627	783	6401
	CONSUMPTIVE USE	601	432	1542	2120	2088	2400	3431	2787	2183	1732	1116	537	20969
YUMA COUNTY WATER USERS ASSOCIATION														
DIVERSION AT IMPERIAL DAM	DIVERSION	17377	16610	30678	39086	37937	26501	31168	25165	28613	43306	29450	21157	347048
PUMPED FROM WELLS 7F/	DIVERSION	431	400	397	370	384	319	309	263	220	252	215	266	3826
	RETURNS	10384	10154	10164	9954	11317	9406	8706	9683	10708	13763	13464	12114	129817
	CONSUMPTIVE USE	7424	6856	20911	29502	27004	17414	22771	15745	18125	29795	16201	9309	221057
COCOPA INDIAN RESERVATION														
DIVERSION AT IMPERIAL DAM	DIVERSION	243	38	327	550	500	190	545	576	474	784	51	259	4537
PUMPED FROM WELLS 7F/	DIVERSION	6	1	4	5	5	2	5	6	4	5	0	3	46
PUMPED FROM WELLS, WEST COCOPA	DIVERSION	287	308	578	917	1027	1197	1120	1047	400	452	378	651	8361
	RETURNS	3	0	2	6	7	2	3	11	6	10	0	1	51
	CONSUMPTIVE USE	533	347	907	1466	1525	1387	1667	1618	872	1231	429	912	12893
YUMA AREA OFFICE, USBR														
DIVERSION FROM WELL NO.8	DIVERSION 2/	82	74	82	80	82	80	82	82	80	82	80	82	968
	RETURNS	0	0	0	0	0	0	0	0	0	0	0	0	0
	CONSUMPTIVE USE	82	74	82	80	82	80	82	82	80	82	80	82	968
PUMPED FROM SOUTH GILA WELLS (DPOC'S)	RETURNS 5/	4716	5559	6330	6321	6578	5720	6166	5617	5438	5562	6757	6751	71515
OTHER USERS PUMPING FROM COLORADO RIVER AND WELLS IN FLOOD PLAIN DAVIS DAM TO INTERNATIONAL BOUNDARY	DIVERSION 6/	1737	1651	2412	2936	3317	3227	4137	3794	2228	2414	2088	2675	32616
	RETURNS													
	CONSUMPTIVE USE													
ARIZONA TOTALS	DIVERSION	251570	232494	308481	318590	368179	361137	294093	234186	191365	209180	245142	213151	3227570
	RETURNS	49351	46567	55131	51673	59116	55995	58374	54289	53400	60811	58313	57843	660863
	CONSUMPTIVE USE	202219	185928	253350	266917	309063	305143	235719	179897	137965	148369	186829	155308	2566707

NOTE: The term 'CONSUMPTIVE USE' in this tabulation means diversions including ground water pumping, less measured return flow and less current estimated unmeasured return flow to the river.

1/ No surface returns unless shown.

2/ Reported annual total only, distributed monthly according to nearby users.

3/ Calculated by assuming an annual diversion of 6 ac-ft per irrigated acre.

4/ Calculated using monthly power records.

5/ Pumped from underground and credited as return flow to Yuma Mesa Division but unassigned to districts as returns.

Includes quantities of drainage from Yuma Mesa, Unit B, as well as from South Gila Valley.

6/ Details on Arizona Supplemental Sheets.



DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW  
AND CONSUMPTIVE USE OF SUCH WATER  
CALENDAR YEAR 1998  
STATE OF ARIZONA

09/07/99

(ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
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7/ Summation for the Yuma Mesa Division, consisting of the North Gila Valley Irrigation District, the Yuma Irrigation District, and the Yuma Mesa Irrigation & Drainage District is as follows:

Item	Annual Totals (Acre-Feet)	
Diversion at Imperial Dam A/	321404	
Pumped from wells	2169	
Surface returns from South Gila Valley (S.Gila Canal Wasteway)	1981 *	
Return flow North Gila Valley (6 drains & wasteways)	8509 *	
Return flow South Gila Valley wells (DPOC's)	71515	
Return flow Yuma Mesa Outlet Drain B/	29793 *	
Return flow protective and regulatory pumping unit C/	4366 *	
Estimated unmeasured groundwater return flow D/	25672	
Return flow share of Gila Main Canal loss E/	3977 *	
Subtotal return flow F/	145813	145686 check from above
Consumptive Use (see note above)	177760	177887 check from above

(A) Total for the North Gila Valley, The Yuma Irrigation and the Yuma Mesa Irrigation and Drainage Districts, and 'Unit B'.

(B) Estimated at 85 percent of the Yuma Mesa Outlet Drain with balance credited to 'Unit B'.

(C) Estimated at 85 percent of Protective and Regulatory Pumping Unit with balance credited to 'Unit B'.

(D) Estimated at 38 percent of the North Gila Valley Diversion at Imperial Dam plus 14 percent of Yuma Irrigation District diversion at Imperial Dam. (Based on analysis of the USGS Report 83-4220 entitled 'A Method for Estimating Ground-Water Return Flow to the Lower Colorado River in the Yuma Area')

(E) Diversion\*mielage weighted share of Gila Main Canal loss less canal surface evaporation (1397 af/yr) and phreatophytes (2154 af/yr).

(F) Additional unmeasured amounts of return flows from the Yuma Mesa Irrigation and Drainage District, 'Unit B', the Cocopah Indian Reservation, and the Yuma County Water Users Association (YCWUA) are utilized to meet consumptive uses in the United States and in partial satisfaction of the Mexican Treaty obligation. Some of these ground water flows are recovered by pumping from wells on the Cocopah Indian Reservation and in the YCWUA area, and by some of the surface drains in the YCWUA area. Efforts will be made to at least quantify these return flows within broad limits by respective water user entities in future years.

8/ Diversion adjusted for delivery to Mohave Valley I. D. D. (Chesney).

9/ Main Outlet Drain return flow credit is measured flow at Station 0+00 and includes both Colorado River and Gila River water. Reclamation is working to develop a method to separate the different sources of return flow and will apply that methodology when available.

10/ Includes 1 river pump and non-taxable tribal usage delivered by the Town of Parker.

PUMPAGE FROM COLORADO RIVER  
AND WELLS IN FLOOD PLAIN  
DAVIS DAM TO INTERNATIONAL BOUNDARY  
CALENDAR YEAR 1998  
STATE OF ARIZONA

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(ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
Marble Canyon Company	0.35	0.86	1.44	1.59	1.97	2.31	2.23	2.11	1.77	1.14	1.2	0.89	17.9
SUBTOTAL, LEES FERRY TO DAVIS DAM	0.4	0.9	1.4	1.6	2.0	2.3	2.2	2.1	1.8	1.1	1.2	0.9	17.9
Crystal Beach Water Cons. Dist. T4N/R20W Sec 7	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	90.0
Havasu Water Co. of AZ (Citizens Utilities)	27.5	26.0	30.5	31.5	33.7	42.9	47.9	47.6	39.7	34.8	31.9	29.2	423.1
SUBTOTALS, DAVIS DAM TO PARKER DAM	35.0	33.5	38.0	39.0	41.2	50.4	55.4	55.1	47.2	42.3	39.4	36.7	513.1
Hillcrest Water Co.	1.1	1.3	1.3	1.4	2.2	1.2	2.5	2.8	1.6	2.0	1.6	1.4	20.6
Rayner, Jack Jr. (B-04-22)34 DCC(CDD)	298.1	250.6	169.7	369.4	452.9	290.2	946.3	578.7	0.0	258.6	186.4	20.2	3821.1
Rayner, Jack Jr. (B-04-22)34 DCC(DCD)	0.1	0.0	0.0	53.4	17.5	26.6	33.4	63.0	0.0	0.0	0.0	0.0	193.9
Arakelian, George (B-03-22)16 DBD(DAD) 3/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Arakelian, George (B-03-22)16 DBD(DAD) 3/	149.7	119.9	204.4	220.7	269.8	327.1	356.9	343.4	269.8	226.0	160.6	158.1	2808.0
Cibola Sportsman SEC31 T01S R23W CCB 1/3/	26	20	35	38	46	56	61	59	46	39	27	27	480.0
Arizona State Parks (Windsor Beach)	0.0	0.1	0.2	0.9	0.9	1.2	1.5	1.5	1.2	0.3	0.0	0.0	8.0
BLM Permittees (LHFO & YFO)	49.2	33.4	42.8	68.0	82.7	94.0	110.7	110.3	78.6	81.1	58.8	55.8	865.2
SUBTOTALS, PARKER DAM TO IMPERIAL DAM	523.8	425.8	453.4	751.6	872.2	796.3	1512.3	1158.5	397.5	606.7	434.9	262.5	8196.8
Pratt, L. Sec14 T7S R22W ABC 2/3/	19.2	15.4	26.2	28.3	34.6	41.9	45.8	44.0	34.6	29.0	20.6	20.3	360.0
Dulin, A. (C-8-22) 7DAC	0.0	6.6	20.5	24.5	14.2	32.2	47.8	37.4	7.8	0.0	0.0	0.0	191.0
Dulin, A. (C-8-22) 9CCC	50.9	28.4	52.8	60.6	44.7	89.5	121.4	99.9	30.4	0	0	0	578.6
Glen Curtis Cit (C-8-22) 7CCD	0.0	8.8	7.7	395.8	396.4	226.7	219.6	163.2	0.0	108.0	54.2	0.0	1580.5
Glen Curtis Cit (C-8-22) 18CBD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Glen Curtis Cit (C-8-22) 24BDD 2/3/	16.0	12.8	21.8	23.6	28.8	35.0	38.1	36.7	28.8	24.2	17.2	16.9	300.0
Glen Curtis Cit (C-8-22) 24BDD	38.7	97.9	274.3	25.4	174.9	68.5	52.6	346.9	341.5	94.4	255.8	306.8	2077.8
Glen Curtis Cit (C-8-22) 18DDD 2/3/	32.0	25.6	43.7	47.2	57.7	69.9	76.3	73.4	57.7	48.3	34.3	33.8	600.0
Yowelman, R. SEC17 T08S R22W CBC 2/3/	51.2	41.0	69.9	75.5	92.3	111.8	122.0	117.4	92.3	77.3	54.9	54.0	960.0
Cameron Bros. SEC24 T08S R22W CCB 3/	7.8	6.2	10.6	11.4	14.0	17.0	18.5	17.8	14.0	11.7	8.3	8.2	145.6
Ott, Judd T. SEC30 T08S R22W BAB 3/	21.2	17.0	28.9	31.2	38.2	46.3	50.5	48.6	38.2	32.0	22.7	22.4	397.3
Ott, Judd T. (C-8-22) 19CCA 3/	27.5	22.0	37.5	40.5	49.5	60.0	65.5	63.0	49.5	41.5	29.5	29.0	515.2
Cameron Bros SEC24 T08S R22W CAD 3/	12.0	9.6	16.4	17.7	21.6	26.2	28.6	27.5	21.6	18.1	12.9	12.7	225.2
Ogram, George SEC24 T08S R23W DCC 3/	26.6	21.3	36.3	39.2	48.0	58.2	63.5	61.1	48.0	40.2	28.6	28.1	499.3
Peach SEC22 T08S R23W DDC	0.0	0.0	66.5	13.0	14.9	34.8	70.8	76.5	75.6	0.0	0.0	0.0	352.1
Ogram, George SEC23 T08S R23W CDA 3/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ott, Lee & Larry	39.5	31.7	54.0	58.3	71.3	86.4	94.3	90.7	71.3	59.7	42.4	41.8	741.9
Yucca Pwr Plant SEC36 T16S R12E CBA 3/	31.8	25.5	43.5	46.9	57.4	69.6	75.9	73.0	57.4	48.1	34.1	33.6	597.0
Texas Hill Farm SEC28 T16S R22E CDA	1.8	1.6	8.4	13.9	23.4	5.6	0.0	17.3	0.0	24.6	11.4	5.1	113.2
Curry Family LTD SEC29 T16S R22E DAC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Power, R.E. & P. SEC30 T16S R22E ACC 2/3/	151.9	121.7	207.5	224.0	273.9	332.0	362.2	348.6	273.9	229.4	163.0	160.5	2850.0
Hall, Ansil SEC36 T16S R21E BCB 2/3/	23.0	18.4	31.4	34.0	41.5	50.3	54.9	52.8	41.5	34.8	24.7	24.3	432.0
Burrell SEC33 T08S R24W BAB 2/3/	16.0	12.8	21.8	23.6	28.8	35.0	38.1	36.7	28.8	24.2	17.2	16.9	300.0
Cocopah Bend RV SEC30 T16S R22E BDB 2/	18.1	14.5	24.8	26.7	32.7	39.6	43.2	41.6	32.7	27.4	19.4	19.1	340.0
Huerta Packing 16S/22E-30CDA	20.5	63.5	33.9	13.8	61.5	23.3	0.0	0.0	0.0	19.7	66.2	37.0	339.4
Huerta Packing 16S/21E-25DAA	29.4	73.4	45.7	32.3	92.2	60.8	47.4	41.0	96.3	48.4	169.3	34.4	770.6
Farmland Mgmt SEC19 T09S R24W BAD	4.3	0.4	6.8	4.6	4.0	7.7	0.5	6.3	0.0	1.0	3.2	7.1	46.0
Farmland Mgmt SEC19 T09S R24W BDD	12.4	0.0	23.4	23.9	0.0	21.1	2.0	12.6	0.0	3.4	7.9	21.2	127.7
Farmland Mgmt SEC19 T09S R24W BDA	0.0	13.2	13.7	0.0	0.0	0.0	0.7	0.0	0.0	1.9	4.6	12.2	46.3
Waymon Farms SEC31 T09S R24W BBB	77.2	132.2	116.3	119.7	52.2	70.4	25.0	27.2	0.0	262.7	115.8	236.1	1234.8

PUMPAGE FROM COLORADO RIVER  
AND WELLS IN FLOOD PLAIN  
DAVIS DAM TO INTERNATIONAL BOUNDARY  
CALENDAR YEAR 1998  
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(ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
Waymon Farms SEC36 T09S R25W AAA	47.5	86.3	101.1	125.8	59.8	84.8	26.5	28.6	0.0	0.0	0.0	268.6	829.0
W. Brand-D. Donnelly (C-9-25) 35ABA 2/3/	33.6	26.9	45.9	49.5	60.5	73.4	80.1	77.0	60.5	50.7	36.0	35.5	630.0
J W Cumings (C-10-25) 1BBA	63.6	76.6	53.4	149.3	101.4	46.5	140.7	58.2	0.0	56.8	85.8	68.5	900.7
P. Sibley (C-10-25) 2CDA 2/3/	103.9	83.3	142.0	153.3	187.4	227.2	247.8	238.5	187.4	157.0	111.5	109.8	1950.0
J W Cumings (C-10-25) 14ADB	29.7	22.0	44.8	53.9	52.8	44.1	66.4	0.0	0.0	33.8	14.9	587.7	950.1
C & J Cummings (C-10-25) 26BAB 2/3/	25.6	20.5	34.9	37.7	46.1	55.9	61.0	58.7	46.1	38.6	27.5	27.0	480.0
J. Barkley (C-10-25) 35CBA 2/3/	25.6	20.5	34.9	37.7	46.1	55.9	61.0	58.7	46.1	38.6	27.5	27.0	480.0
Brown, Roger S. (C-11-25) 2BBA	18.6	31.8	63.0	60.0	61.3	43.6	74.0	78.3	0.0	67.5	49.4	52.1	599.7
Hughes, Earl (C-11-25) 3DAC	100.5	1.3	55.3	20.6	18.0	26.5	44.4	19.0	0.0	10.7	41.7	17.3	355.4
SUBTOTALS, BELOW IMPERIAL DAM	1177.6	1190.8	1919.7	2143.5	2402.1	2377.7	2567.2	2578.2	1782.0	1763.5	1612.6	2375.0	23896.3
*** Total Arizona Supplemental ***	1737	1651	2412	2936	3317	3227	4137	3794	2228	2414	2088	2675	32624

1/ Calculated from monthly power records and power-discharge measurements where available, else from power-discharge rate.

2/ Calculated by assuming an annual diversion rate of 6 ac-ft per acre.

3/ Reported annual total only, distributed monthly according to nearby users.

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW  
AND CONSUMPTIVE USE OF SUCH WATER  
CALENDAR YEAR 1998  
STATE OF CALIFORNIA

09/07/99

(ACRE-FEET)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
FORT MOHAVE INDIAN RESERVATION DELIVERED BY CITY OF NEEDLES PUMPED FROM RIVER AND WELLS	DIVERSION	4	3	5	6	7	8	9	9	7	6	4	4	71
	DIVERSION 7/ RETURNS	1008	404	1042	2174	3477	3510	3284	3677	2704	2816	1224	884	26205
	CONSUMPTIVE USE	1012	407	1047	2180	3484	3519	3293	3685	2711	2822	1228	888	26276
CITY OF NEEDLES 4 WELLS NW SW SEC 29 T9N R23E SBM	DIVERSION	134	107	183	198	242	293	320	308	242	203	144	142	2517
	RETURNS 10/ CONSUMPTIVE USE	72	58	99	107	131	158	173	166	131	109	78	76	1358
	CONSUMPTIVE USE	62	49	84	91	111	135	147	142	111	93	66	65	1159
CHEMEHUEVI INDIAN RESERVATION PUMPED FROM RIVER AND WELLS	DIVERSION	35	29	49	53	64	77	84	81	64	53	38	37	664
	RETURNS CONSUMPTIVE USE													
METROPOLITAN WATER DISTRICT DIVERSION FROM LAKE HAVASU	DIVERSION	109503	73607	64205	50215	62486	86048	109388	110925	101467	97482	107138	103831	1076295
	RETURNS 2/ CONSUMPTIVE USE	275	257	280	271	271	242	261	251	258	274	261	269	3170
	CONSUMPTIVE USE	109228	73350	63925	49944	62215	85806	109127	110674	101209	97208	106877	103562	1073125
PARKER DAM AND GOVERNMENT CAMP DIVERSION AT PARKER DAM	DIVERSION	5	3	4	6	9	16	19	20	12	14	9	3	121
	RETURNS CONSUMPTIVE USE	0	0	0	0	1	1	1	1	1	1	1	0	7
	CONSUMPTIVE USE	5	3	4	6	8	16	18	19	11	13	8	3	115
COLORADO RIVER INDIAN RESERVATION PUMPED FROM 1 PUMP AND WELLS 4 PUMPS BIG RIVER	DIVERSION 4/ DIVERSION 4/ RETURNS CONSUMPTIVE USE	0	0	0	0	0	0	0	0	0	0	0	0	0
	CONSUMPTIVE USE	697	79	571	1151	1072	1220	1869	1356	1009	1359	457	97	10937
CITY OF WINTERHAVEN 1 WELL SE SE NE SEC 27 T16S R22E SBM	DIVERSION 6/ RETURNS CONSUMPTIVE USE	7	6	10	11	13	16	17	17	13	11	8	8	135
PALO VERDE IRRIGATION DISTRICT DIVERSION FROM PALO VERDE DAM	DIVERSION	33700	25630	70190	93560	107100	111200	117900	112900	78530	71280	49030	47890	918910
	RETURNS CONSUMPTIVE USE	29961	29602	36379	39312	44410	43608	47606	53391	48067	40968	39777	38716	491797
	CONSUMPTIVE USE	3739	-3972	33811	54248	62690	67592	70294	59509	30463	30312	9253	9174	427113
YUMA PROJECTS, RES. DIV. INDIAN UNIT DIVERSION AT IMPERIAL DAM	DIVERSION	1752	1046	2919	4373	3694	1837	1830	2473	2137	3902	3283	2140	31386
	RETURNS CONSUMPTIVE USE	13	6	13	31	38	13	7	32	16	36	13	5	223
	CONSUMPTIVE USE	1739	1040	2906	4342	3656	1824	1823	2441	2121	3866	3270	2135	31163
YUMA PROJECTS, RES. DIV. BARD UNIT DIVERSION AT IMPERIAL DAM	DIVERSION	2359	969	3960	5607	6227	6249	5799	4053	3874	5238	3045	2432	49812
	RETURNS CONSUMPTIVE USE	13	4	13	27	41	31	17	37	21	31	9	4	248
	CONSUMPTIVE USE	2346	965	3947	5580	6186	6218	5782	4016	3853	5207	3036	2428	49564
RETURNS FROM YUMA PROJECT RESERVATION DIVISION RETURNS SUM YUMA PROJECTS, RES. DIV. USE	RETURNS 3/ CONSUMPTIVE USE	2550	1908	2548	2596	3452	3250	2879	2839	3090	3606	3661	3345	35724
	CONSUMPTIVE USE	1535	97	4305	7326	6390	4792	4726	3618	2884	5467	2645	1218	45003

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW  
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CALENDAR YEAR 1998  
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09/07/99

(ACRE-FEET)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
<b>IMPERIAL IRRIGATION DISTRICT</b>														
DIVERSION AT IMPERIAL DAM	DIVERSION	157213	106224	299112	342726	354043	327213	377934	321040	263927	259873	176547	162312	3148164
	RETURNS	2562	1326	2855	4883	6964	4785	3227	8791	4281	4698	1489	755	46616
	CONSUMPTIVE USE	154651	104898	296257	337843	347079	322428	374707	312249	259646	255175	175058	161557	3101548
<b>COACHELLA VALLEY WATER DISTRICT</b>														
DIVERSION AT IMPERIAL DAM	DIVERSION	16333	11457	25096	31771	35611	37112	38931	39412	36367	27020	25047	18440	342597
	RETURNS	266	143	240	453	700	543	332	1079	590	488	211	86	5131
	CONSUMPTIVE USE	16067	11314	24856	31318	34911	36569	38599	38333	35777	26532	24836	18354	337466
<b>OTHER USERS PUMPING FROM COLORADO RIVER AND WELLS IN FLOOD PLAIN DAVIS DAM TO INTERNATIONAL BOUNDARY</b>														
	DIVERSION 5/	1088	878	1760	2120	2640	2269	2449	2583	1750	1385	1637	1128	21687
	RETURNS													
	CONSUMPTIVE USE													
<b>CALIFORNIA TOTALS</b>														
	DIVERSION	323838	220443	469107	533971	576685	577069	659834	598853	492103	470642	367611	339347	5629502
	RETURNS	35713	33304	42427	47680	56007	52631	54503	66587	56454	50211	45499	43257	584274
	CONSUMPTIVE USE	288126	187139	426680	486291	520678	524438	605331	532266	435649	420430	322111	296091	5045228
	WATER MANAGEMENT													
	ACCT. CREDITS	0	0	0	0	0	0	0	0	0	0	0	0	0
	TOTAL USE	288126	187139	426680	486291	520678	524438	605331	532266	435649	420430	322111	296091	5045228
<b>WATER CONSERVATION PROGRAM</b>														
IMPERIAL I. D./METROPOLITAN W. D. CONSERVED WATER 9/		8930	8930	8930	8930	8930	8930	8930	8930	8930	8930	8930	8930	107160

NOTE: The term 'CONSUMPTIVE USE' in this tabulation means diversions including ground water pumping, less measured return flow and less current estimated unmeasured return flow to the river.

1/ No surface returns unless shown.

2/ Estimate based on measured regulatory reservoirs seepage returns less an estimated amount of phreatophyte use.

3/ Unassigned returns include drainage from the Indian Unit and the Bard Unit in the Reservation Division but excludes seepage from the All-American Canal.

4/ Calculated using monthly power records.

5/ Details on California Supplemental Sheets.

6/ Reported annual total only, distributed monthly according to nearby users.

7/ Calculated by assuming an annual diversion of 6 ac-ft per irrigated acre.

9/ IID/MWD Water Conservation Program Phase 1 conserved water made available by IID for diversion in current year by MWD.

10/ Needles total return estimated as 40% of diversion plus measured returns (unpublished report, Colorado River Board of California).

PUMPAGE FROM COLORADO RIVER  
AND WELLS IN FLOOD PLAIN  
DAVIS DAM TO INTERNATIONAL BOUNDARY  
CALENDAR YEAR 1998  
STATE OF CALIFORNIA

09/07/99

(ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
Ida Cal 11N/22W -31BAB	66.8	0.0	172.6	122.1	361.1	331.7	337.2	469.2	398.0	181.4	283.5	0.2	2723.8
Ida Cal 11N/21E -36ADD	0.0	99.5	0.0	91.5	134.1	118.1	162.8	127.7	76.1	70.8	85.1	19.7	985.4
Ida Cal 11N/21E -36CDA	22.7	0.9	18.6	40.1	57.2	56.6	69.9	89.3	30.9	65.4	13.1	29.1	493.8
Southern Cal Gas 09N/23E -29DCA 4/	3.3	2.6	4.4	4.8	5.9	7.1	7.8	7.5	5.9	4.9	3.5	3.4	61.0
Havasu Water Company T5N/R25E SEC31 1/4/	0.2	0.1	0.2	0.2	0.3	0.4	0.4	0.4	0.3	0.2	0.2	0.2	3.1
SUBTOTALS, DAVIS DAM TO PARKER DAM	92.9	103.1	195.9	258.7	558.6	513.9	578.0	694.0	511.2	322.8	385.4	52.6	4267.1
Lye, C. L. 1S/24E -16ACB	8.7	10.4	8.7	8.1	7.0	8.7	13.0	18.1	13.7	13.3	6.0	4.9	120.5
BLM Permitees (LHFO & YFO) 3/	24.1	20.0	24.0	37.6	50.7	64.0	52.1	57.8	53.6	53.2	28.3	27.3	492.7
Picacho Development Corp 1/4/	0.3	0.3	0.5	0.5	0.6	0.7	0.8	0.8	0.6	0.5	0.4	0.4	6.3
SUBTOTALS, PARKER DAM TO IMPERIAL DAM	33.2	30.7	33.2	46.2	58.3	73.4	65.9	76.7	67.9	67.0	34.6	32.5	619.5
Valdez, Mike SEC35 T15S R23E DDC 2/4/	27.3	9.1	62.6	69.4	29.6	0.0	0.0	46.6	9.1	21.6	1.1	0.0	276.4
Living Earth Fm (C-16-23) 2BBC	4.5	1.1	13.6	47.8	33.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Valdez, Mike SEC22 T16S R23E BDD	11.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.4
Power, Pete SEC14 T16S R23E CCB 2/4/	108.7	87.1	148.5	160.3	196.0	237.7	259.3	249.5	196.0	164.2	116.7	114.9	2040.0
Harp, P. (R. Harp) (C-8-23)13AAD 2/4/	32.0	25.6	43.7	47.2	57.7	69.9	76.3	73.4	57.7	48.3	34.3	33.8	600.0
Horizon Farms (C-8-22) 6CDA	135.3	134.2	178.6	228.6	304.8	205.9	246.8	222.9	179.7	188.8	308.2	338.9	2672.7
Horizon Farms (C-8-22) 7BAB	18.5	18.5	84.6	101.6	236.7	157.8	127.2	91.7	61.1	22.0	2.1	17.8	939.6
Horizon Farms (C-10-22) 7ABD 2/4/	12.0	9.6	16.4	17.7	21.6	26.2	28.6	27.5	21.6	18.1	12.9	12.7	225.0
Horizon Farms (C-10-22) 6DCB 2/4/	12.0	9.6	16.4	17.7	21.6	26.2	28.6	27.5	21.6	18.1	12.9	12.7	225.0
Horizon Farms (C-8-22) 6BBB 2/4/	12.0	9.6	16.4	17.7	21.6	26.2	28.6	27.5	21.6	18.1	12.9	12.7	225.0
Horizon Farms (C-8-22) 6BCD 2/4/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Horizon Farms (C-8-22) 6CBA	97.4	83.2	152.1	174.2	116.6	68.9	181.3	141.5	39.1	12.1	66.8	4.3	1137.5
Horizon Farms (C-10-22) 6CBB 2/4/	12.0	9.6	16.4	17.7	21.6	26.2	28.6	27.5	21.6	18.1	12.9	12.7	225.0
MivCo Packing (C-16S-23E) 9CCA	58.4	55.2	120.5	124.3	134.1	75.3	47.5	53.7	139.3	178.8	294.8	73.3	1355.2
Horizon Farms (C-8-22) 1BBA	6.8	0.0	17.1	19.3	20.5	10.2	19.3	22.7	2.3	17.1	3.4	11.4	150.1
Ed Wavers Farms (C-8-23) 1BAD	37.5	9.4	93.7	62.5	96.8	103.1	0.0	143.7	0.0	96.8	37.5	34.4	715.4
Living Earth Fm (C-8-23) 2ADC	0.1	0.1	1.4	1.3	1.6	1.0	0.0	0.0	5.7	10.2	8.0	2.3	31.7
Land, K. H. (C-8-23) 2DDA	69.8	37.5	57.9	105.6	83.5	134.6	95.4	149.9	0.0	0.0	85.2	69.8	889.2
Wilson Farms (C-8-23) 12BBA	2.3	0.0	1.1	3.4	5.7	5.7	6.8	3.4	2.3	3.4	0.0	3.4	37.5
Horizon Farms (C-8-23) 1DCC	94.8	37.1	57.7	151.2	276.3	81.1	97.6	23.4	60.5	37.1	49.5	130.6	1096.9
Dees, Alex (C-8-23) 1DAC	68.2	36.8	136.3	175.0	219.2	248.7	307.6	303.9	222.9	79.2	101.3	57.1	1956.2
Harp, Robert (C-8-23) 12DAC 2/4/	9.6	7.7	13.1	14.1	17.3	21.0	22.9	22.0	17.3	14.5	10.3	10.1	180.0
Horizon Farms (C-8-23) 12CDB	12.5	10.2	8.0	6.8	9.1	10.2	15.9	17.1	13.6	8.1	9.1	12.5	133.1
Horizon Farms (C-8-23) 12AAC 1/4/	0.2	0.2	0.3	0.3	0.3	0.4	0.5	0.4	0.3	0.3	0.2	0.2	3.6
Power, O. L. (C-8-23) 11DCA	105.7	87.7	182.1	177.6	74.2	116.9	155.1	105.7	54.0	0.0	22.5	63.0	1144.5
Valdez, Mike T16S R23E SEC 30ACC	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Valdez, Mike T16S R23E SEC 30ADD	0.0	54.4	74.2	54.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	183.0
Unknown, I.D. 16S-22E 29DAD 2/4/	12.8	10.2	17.5	18.9	23.1	28.0	30.5	29.4	23.1	19.3	13.7	13.5	240.0
Wetmore, Kenneth C. 2/3/4/	0.3	0.2	0.4	0.4	0.5	0.6	0.7	0.7	0.5	0.4	0.3	0.3	5.4
Williams, Jerry 3/	0.1	0.0	0.0	0.0	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	1.1
Lindeman, William H. & Hazel D. 3/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Carney, Jerome D. 3/4/	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.5
Phillips, Dorothy L. 3/4/	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	1.8
SUBTOTALS, BELOW IMPERIAL DAM	962.2	744.1	1530.7	1815.2	2023.5	1682.2	1805.5	1812.1	1171.4	995.0	1216.7	1042.5	16803.1
*** Total California Supplemental ***	1088	878	1760	2120	2640	2269	2449	2583	1750	1385	1637	1128	21690

PUMPAGE FROM COLORADO RIVER  
 AND WELLS IN FLOOD PLAIN  
 DAVIS DAM TO INTERNATIONAL BOUNDARY  
 CALENDAR YEAR 1998  
 STATE OF CALIFORNIA

09/07/99

(ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
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1/ Calculated from monthly power records and power-discharge measurements where available, else from power-discharge rate.

2/ Calculated by assuming an annual diversion rate of 6 ac-ft per acre.

3/ Location of well/pump not reported.

4/ Reported annual total only, distributed monthly according to nearby users.

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW  
AND CONSUMPTIVE USE OF SUCH WATER  
CALENDAR YEAR 1998  
STATE OF NEVADA

09/07/99

(ACRE-FEET)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
BOULDER CANYON PROJECT														
DIVERSION AT HOOVER DAM	DIVERSION	7	5	5	5	6	6	9	11	11	10	9	10	95
	RETURNS	3	2	3	3	2	3	3	3	3	3	2	2	31
	CONSUMPTIVE USE	4	3	2	3	3	3	6	9	8	7	7	7	63
ROBERT B. GRIFFITH WATER PROJECT														
DIVERSION AT SADDLE ISLAND, LAKE MEAD	DIVERSION	26687	20774	26588	28635	33036	31988	34865	33271	25830	34308	29603	27483	353068
BY USER: BOULDER CITY 4/		416	328	440	549	728	858	928	913	804	708	516	448	7635
LAS VEGAS VALLEY W.D. 4/		21624	17181	22088	22470	25106	23348	25122	23754	17523	26322	23231	21838	269607
HENDERSON 4/		2441	1822	2250	3031	3679	4428	4863	4741	3894	3823	3085	2784	40842
NORTH LAS VEGAS 4/		2085	1343	1652	2397	3280	3065	3612	3512	3357	3238	2622	2309	32473
NELLIS AIR FORCE BASE 4/		121	99	158	188	243	291	340	350	252	216	149	103	2512
	RETURNS													
	CONSUMPTIVE USE													
LAKE MEAD NATIONAL RECREATION AREA														
DIVERSIONS FROM LAKE MEAD	DIVERSION	43	35	42	45	50	53	58	58	48	48	40	32	552
	RETURNS													
	CONSUMPTIVE USE													
LAKE MEAD NATIONAL RECREATION AREA														
DIVERSION FROM LAKE MOHAVE	DIVERSION	20	19	19	17	24	41	33	35	30	28	23	23	312
(COTTONWOOD)	RETURNS													
	CONSUMPTIVE USE													
BASIC MANAGEMENT INC.														
DIVERSION AT SADDLE ISLAND, LAKE MEAD	DIVERSION	584	545	501	617	450	439	563	516	506	434	631	553	6339
	RETURNS													
	CONSUMPTIVE USE													
CITY OF HENDERSON														
DIVERSION AT SADDLE ISLAND, LAKE MEAD	DIVERSION	626	375	923	1092	1989	1864	1915	1813	1393	1073	710	510	14283
	RETURNS													
	CONSUMPTIVE USE													
NEVADA DEPARTMENT OF FISH & GAME														
DIVERSION AT SADDLE ISLAND, LAKE MEAD	DIVERSION	458	402	467	455	474	458	466	472	457	471	460	463	5503
	RETURNS	457	401	466	453	473	457	464	471	456	470	460	462	5490
	CONSUMPTIVE USE	1	1	1	2	1	1	2	1	1	1	0	1	13
CITY OF BOULDER CITY														
DIVERSION AT HOOVER DAM	DIVERSION	6	2	9	7	21	19	20	23	14	1	6	4	132
	RETURNS													
	CONSUMPTIVE USE													
PACIFIC COAST BUILDING PRODUCTS INC.														
DIVERSION AT GYPSUM WASH, LAKE MEAD	DIVERSION	55	61	44	64	57	57	57	31	76	51	40	58	651
	RETURNS													
	CONSUMPTIVE USE													
SOUTHERN NEVADA WATER AUTHORITY (SCE)														
PUMPED FROM SEC 24 T32S R66E MDB&M	DIVERSION	938	794	948	447	571	1117	1422	1359	1185	1188	1241	1641	12851
	RETURNS													
	CONSUMPTIVE USE													
BIG BEND WATER DISTRICT														
DIVERSION SEC 12 T32S R66E MDB&M	DIVERSION	322	274	357	387	462	476	538	544	444	463	356	342	4965
	RETURNS	211	225	244	253	267	261	270	274	249	249	220	207	2930
	CONSUMPTIVE USE	111	49	113	134	195	215	268	270	195	214	136	135	2035



DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW  
AND CONSUMPTIVE USE OF SUCH WATER  
CALENDAR YEAR 1998  
STATE OF NEVADA

09/07/99

(ACRE-FEET)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
FORT MOHAVE INDIAN RESERVATION (AVI) 2 WELLS, SECTIONS 27 & 5	DIVERSION RETURNS CONSUMPTIVE USE	211	106	230	298	303	305	231	241	154	129	107	90	2406
LAS VEGAS WASH RETURN FLOWS	RETURNS 2/	12681	13482	14729	12890	13495	11173	9752	8775	11465	13391	13379	12206	147418
OTHER USERS PUMPING FROM COLORADO RIVER AND WELLS IN FLOOD PLAIN DAVIS DAM TO CALIFORNIA BOUNDARY	DIVERSION 3/ RETURNS CONSUMPTIVE USE	1	1	1	1	2	2	2	2	2	1	1	1	17
NEVADA TOTALS	DIVERSION RETURNS CONSUMPTIVE USE	29958 13352 16606	23394 14110 9283	30134 15442 14692	32070 13599 18472	37445 14237 23208	36825 11894 24931	40179 10489 29690	38376 9523 28853	30150 12173 17977	38205 14113 24092	33227 14061 19166	31210 12877 18333	401173 155869 245303
GROUNDWATER INJECTED STORAGE 5/														
LAS VEGAS VALLEY WATER DIST.	INJECTED WITHDRAWN	6034 0	4468 0	4941 0	1324 0	0 0	0 0	0 0	0 0	0 0	849 0	3916 0	5614 0	27146 0
CITY OF NORTH LAS VEGAS	INJECTED WITHDRAWN	128 0	0 0	0 0	19 0	0 0	0 0	0 0	0 0	0 0	65 0	97 NA	108 0	417 0

NOTE: The term 'CONSUMPTIVE USE' in this tabulation means diversions including ground water pumping, less measured return flow and less current estimated unmeasured return flow to the river.

1/ No surface returns unless shown.

2/ Estimated return based on historic use method adopted by the task force on unmeasured return flows on August 28, 1984 and as revised.

3/ Details on Nevada Supplemental Sheets.

4/ User deliveries adjusted by weighted use to equal total diversion at Lake Mead.

5/ Beginning of year cumulative injected storage of  
withdrawals from injected storage of

\* 142,684 AF plus current year increase in injected storage of  
0 AF yields year end total of 170247 AF injected storage.

27563 AF less current year

\* The difference between the 1997 end of year cumulative injected storage and the 1998 beginning of year storage results from a Nevada water rights settlement which required a recalculation of injected water available to parties to the settlement.

PUMPAGE FROM COLORADO RIVER  
AND WELLS IN FLOOD PLAIN  
DAVIS DAM TO INTERNATIONAL BOUNDARY  
CALENDAR YEAR 1998  
STATE OF NEVADA

09/07/99

(ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
Sportsman's Park 3/	0.5	0.4	0.7	0.8	1.0	1.2	1.3	1.2	1.0	0.8	0.6	0.6	10.1
Boy Scouts of America SEC5 T33S R66E 2/	0.4	0.3	0.5	0.5	0.6	0.8	0.8	0.8	0.6	0.5	0.4	0.4	6.6
*** Total Nevada Supplemental ***	1	1	1	1	2	2	2	2	2	1	1	1	17

2/ Reported annual total only, distributed monthly according to nearby users.

3/ Calculated as an annual use rate of 5.07 ac-ft per acre (2) for existing vegetation type. Distributed as in 2/.

RECORDS OF RELEASES OF MAINSTREAM WATER PURSUANT TO  
ORDERS BUT NOT DIVERTED BY PARTY ORDERING SAME  
AND QUANTITY OF SUCH WATER DELIVERED TO MEXICO IN  
SATISFACTION OF MEXICAN TREATY OR DIVERTED BY OTHERS  
IN ACCORDANCE WITH ARTICLE V(C) OF THE  
DECREE OF THE SUPREME COURT OF  
THE UNITED STATES IN  
ARIZONA v. CALIFORNIA DATED MARCH 9, 1964

CALENDAR YEAR 1998

The following tabulations for calendar year 1998 show records of releases of mainstream water pursuant to orders thereto, but not diverted by the party ordering the same, and the quantity of such water delivered to Mexico in satisfaction of the Mexican Treaty or diverted by others in satisfaction of decreed rights. Also shown are quantities of such rejected water delivered to Mexico in excess of treaty requirements and quantities delivered to storage. The quantities delivered to storage were available to release for future use.

Water ordered but not diverted was analyzed daily for each diverter as the positive difference between the finally approved daily order and the mean daily delivery requested on the day the diversion was made. The monthly quantities shown on the tabulations are the sum of the daily positive quantities. Final approval of daily orders was given in advance of the delivery date by the amount of travel time involved in conveying the water from the storage point to the diversion point on the mainstream. To the extent possible, "water ordered but not diverted" was delivered to others in satisfaction of their rights. The quantities of such deliveries are shown on the tabulation.

Deliveries of water to Mexico in satisfaction of the Mexican Treaty were scheduled based on Mexico's daily orders. Releases from storage were scheduled in sufficient quantities, which when added to return flows, would meet Mexico's daily orders. Deliveries of water to Mexico in satisfaction of the treaty, therefore, were considered to have been made entirely from releases from storage and from return flows scheduled for that purpose and not from water ordered but not diverted by other Colorado River water users. Therefore, the tabulations show no "water ordered but not diverted" as being delivered to Mexico in satisfaction of the treaty.

To date, no daily orders are received for diversion from the Colorado River in Nevada so no sheet is included for Nevada. The storage capacity of Lake Mead is so large in relation to the present daily diversions from the reservoir by Nevada that any "water ordered but not diverted" would be retained for future use and would have no significant effect on scheduling of daily operations of the reservoir.

RELEASE OF MAINSTREAM WATER PURSUANT TO ORDERS  
 BUT NOT DIVERTED BY PARTY ORDERING SAME  
 AND  
 QUANTITY OF SUCH WATER DELIVERED TO MEXICO IN SATISFACTION OF MEXICAN TREATY OR DIVERTED BY OTHERS  
 CALENDAR YEAR 1998  
 STATE OF ARIZONA

WATER USER	(ACRE-FEET)												
	09/07/99												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CENTRAL ARIZONA PROJECT ORDERED BUT NOT DIVERTED	1009	2604	6239	1665	3752	1106	2712	91	2104	2760	1523	4327	29892
DIVERSION AT LAKE HAVASU DELIVERED TO MEXICO IN													
SATISFACTION OF TREATY													
DIVERTED BY OTHERS													
DELIVERED TO STORAGE 2/	1009	2604	6239	1665	3752	1106	2712	91	2104	2760	1523	4327	29892
DELIVERED TO MEXICO IN													
EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
COLO. RIVER INDIAN RESERVATION ORDERED BUT NOT DIVERTED	1198	436	1738	1232	1775	922	2448	1269	516	363	345	1502	13744
DIVERSION AT HEADGATE ROCK DELIVERED TO MEXICO IN													
SATISFACTION OF TREATY													
DIVERTED BY OTHERS	774	190	1597	1121	986	688	1549	573	270	111	175	1311	9345
DELIVERED TO STORAGE 2/	422	244	141	109	789	234	899	696	244	252	169	188	4387
DELIVERED TO MEXICO IN													
EXCESS OF TREATY	2	2	0	2	0	0	0	0	2	0	1	3	12
NORTH GILA VALLEY I.D. ORDERED BUT NOT DIVERTED	518	417	490	1127	1924	1557	2117	325	988	1724	1523	901	13611
DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN													
SATISFACTION OF TREATY													
DIVERTED BY OTHERS	103	28	331	710	653	841	1327	165	359	452	714	508	6191
DELIVERED TO STORAGE 2/	415	389	159	417	1271	716	787	161	629	1271	809	393	7417
DELIVERED TO MEXICO IN													
EXCESS OF TREATY	0	0	0	0	0	0	3	-1	0	1	0	0	3
STURGES (WARREN ACT) ORDERED BUT NOT DIVERTED	0	0	0	0	0	0	0	0	0	0	0	0	0
GILA PROJECT DISTRICTS DELIVERED TO MEXICO IN													
DIVERSION AT IMPERIAL DAM 1/ SATISFACTION OF TREATY													
DIVERTED BY OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
DELIVERED TO STORAGE 2/	0	0	0	0	0	0	0	0	0	0	0	0	0
DELIVERED TO MEXICO IN													
EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
WELLTON-MOHAWK I.& D. DISTRICT ORDERED BUT NOT DIVERTED	3667	5726	3180	1775	2626	1936	3410	4009	3852	5637	4362	2892	43072
DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN													
SATISFACTION OF TREATY													
DIVERTED BY OTHERS	498	389	732	432	716	589	948	781	901	680	1109	895	8670
DELIVERED TO STORAGE 2/	3170	5338	2448	1343	1910	1347	2462	3227	2951	4957	3253	1997	34403
DELIVERED TO MEXICO IN													
EXCESS OF TREATY	-1	-1	0	0	0	0	0	1	0	0	0	0	-1
YUMA IRRIGATION DISTRICT ORDERED BUT NOT DIVERTED	250	793	89	180	216	133	145	123	276	165	270	369	3009
DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN													
SATISFACTION OF TREATY													
DIVERTED BY OTHERS	77	12	60	111	79	119	67	65	79	26	44	119	858
DELIVERED TO STORAGE 2/	173	781	30	69	137	14	77	58	196	139	226	250	2150
DELIVERED TO MEXICO IN													
EXCESS OF TREATY	0	0	-1	0	0	0	1	0	1	0	0	0	1

RELEASE OF MAINSTREAM WATER PURSUANT TO ORDERS  
 BUT NOT DIVERTED BY PARTY ORDERING SAME  
 AND  
 QUANTITY OF SUCH WATER DELIVERED TO MEXICO IN SATISFACTION OF MEXICAN TREATY OR DIVERTED BY OTHERS  
 CALENDAR YEAR 1998  
 STATE OF ARIZONA

WATER USER	09/07/99												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
YUMA MESA I.& D. DISTRICT ORDERED BUT NOT DIVERTED DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN SATISFACTION OF TREATY	2614	3870	1833	2426	3055	1170	1436	2938	3719	3015	1099	462	27637
DIVERTED BY OTHERS	686	349	889	1267	653	587	472	1142	754	940	298	226	8263
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	1928	3521	944	1158	2402	583	964	1795	2965	2075	801	236	19372
DELIVERED TO MEXICO IN EXCESS OF TREATY	0	0	0	1	0	0	0	1	0	0	0	0	2
UNIT "B" I.& D. DISTRICT ORDERED BUT NOT DIVERTED DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN SATISFACTION OF TREATY	242	686	365	264	422	391	333	563	924	272	333	290	5085
DIVERTED BY OTHERS	0	0	0	0	63	226	83	139	145	71	87	173	987
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	79	627	123	133	359	165	250	424	780	200	246	117	3503
DELIVERED TO MEXICO IN EXCESS OF TREATY	163	59	242	131	0	0	0	0	-1	1	0	0	595
YUMA COUNTY WATER USERS ASSN. ORDERED BUT NOT DIVERTE DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN SATISFACTION OF TREATY	2400	4748	5588	3102	4572	2900	2674	1914	1807	1480	4217	2023	37425
DIVERTED BY OTHERS	1305	1430	3656	1866	2091	2047	2015	912	674	228	2392	1323	19939
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	1095	3318	1932	1236	2481	853	659	1002	1133	1252	1825	700	17486
DELIVERED TO MEXICO IN EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
ARIZONA TOTALS ORDERED BUT NOT DIVERTED	11898	19280	19522	11771	18342	10115	15275	11232	14186	15416	13672	12766	173475
DELIVERED TO MEXICO IN SATISFACTION OF TREATY													
DIVERTED BY OTHERS	3443	2398	7265	5507	5241	5097	6461	3777	3182	2508	4819	4555	54253
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	8291	16822	12016	6130	13101	5018	8810	7454	11002	12906	8852	8208	118610
DELIVERED TO MEXICO IN EXCESS OF TREATY	164	60	241	134	0	0	4	1	2	2	1	3	612

1/ No order received.  
 2/ Available for future use.

RELEASE OF MAINSTREAM WATER PURSUANT TO ORDERS  
 BUT NOT DIVERTED BY PARTY ORDERING SAME  
 AND  
 QUANTITY OF SUCH WATER DELIVERED TO MEXICO IN SATISFACTION OF MEXICAN TREATY OR DIVERTED BY OTHERS  
 CALENDAR YEAR 1998  
 STATE OF CALIFORNIA

09/07/99

(ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
METROPOLITAN WATER DISTRICT ORDERED BUT NOT DIVERTED	1700	7000	1000	6800	4800	4000	2700	2300	3900	4000	1000	300	39500
DIVERSION AT LAKE HAVASU DELIVERED TO MEXICO IN													
SATISFACTION OF TREATY													
DIVERTED BY OTHERS													
DELIVERED TO STORAGE 1/	1700	7000	1000	6800	4800	4000	2700	2300	3900	4000	1000	300	39500
DELIVERED TO MEXICO IN													
EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
PALO VERDE IRRIGATION DISTRICT ORDERED BUT NOT DIVERTED	1985	10491	4324	516	1150	774	599	1646	4046	8345	1004	587	35467
DIVERSION AT PALO VERDE DAM DELIVERED TO MEXICO IN													
SATISFACTION OF TREATY													
DIVERTED BY OTHERS	1519	3009	998	395	754	379	349	498	2146	2269	670	551	13537
DELIVERED TO STORAGE 1/	464	7480	3324	119	395	393	248	1146	1898	6073	331	34	21905
DELIVERED TO MEXICO IN													
EXCESS OF TREATY	2	2	2	2	1	2	2	2	2	3	3	2	25
YUMA PROJECT RESV. DIVISION ORDERED BUT NOT DIVERTED	3904	3618	1301	1323	1817	2464	1777	2271	2307	391	2158	2537	25868
DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN													
SATISFACTION OF TREATY													
DIVERTED BY OTHERS	2134	1728	847	1041	1041	1484	1327	1396	1353	149	1129	2049	15678
DELIVERED TO STORAGE 1/	1767	1888	452	280	774	978	448	873	952	240	1027	486	10165
DELIVERED TO MEXICO IN													
EXCESS OF TREATY	3	2	2	2	2	2	2	2	2	2	2	2	25
IMPERIAL IRRIGATION DISTRICT ORDERED BUT NOT DIVERTED	10878	14946	16592	8384	8630	2176	1484	7839	3217	4766	4457	748	84117
DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN													
SATISFACTION OF TREATY													
DIVERTED BY OTHERS	1099	1686	3293	3868	1984	1121	799	2592	551	1246	2099	258	20596
DELIVERED TO STORAGE 1/	9777	13258	13297	4514	6645	1053	682	5244	2664	3519	2356	488	63497
DELIVERED TO MEXICO IN													
EXCESS OF TREATY	2	2	2	2	1	2	3	3	2	1	2	2	24
COACHELLA VALLEY WATER DIST. ORDERED BUT NOT DIVERTED	893	0	204	198	593	317	117	208	637	549	530	609	4855
DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN													
SATISFACTION OF TREATY													
DIVERTED BY OTHERS	329	0	97	171	300	192	105	40	292	173	173	553	2425
DELIVERED TO STORAGE 1/	561	0	105	26	292	123	10	167	343	375	355	54	2411
DELIVERED TO MEXICO IN													
EXCESS OF TREATY	3	0	2	1	1	2	2	1	2	1	2	2	19
CALIFORNIA TOTALS ORDERED BUT NOT DIVERTED	19360	36055	23421	17221	16990	9731	6677	14264	14107	18051	9149	4781	189807
DELIVERED TO MEXICO IN													
SATISFACTION OF TREATY													
DIVERTED BY OTHERS	5081	6423	5235	5475	4079	3176	2580	4526	4342	3837	4071	3411	52236
DELIVERED TO STORAGE 1/	14269	29626	18178	11739	12906	6547	4088	9730	9757	14207	5069	1362	137478
DELIVERED TO MEXICO IN													
EXCESS OF TREATY	10	6	8	7	5	8	9	8	8	7	9	8	93

1/ Available for future use.

RECORDS OF DELIVERIES TO MEXICO OF WATER  
IN SATISFACTION OF THE TREATY OF FEBRUARY 3, 1944  
AND WATER PASSING TO MEXICO IN EXCESS OF  
TREATY REQUIREMENTS IN ACCORDANCE WITH  
ARTICLE V(D) OF THE DECREE OF  
THE SUPREME COURT OF THE UNITED STATES  
IN ARIZONA v. CALIFORNIA DATED MARCH 9, 1964

CALENDAR YEAR 1998



DELIVERIES TO MEXICO IN SATISFACTION OF PART III OF 1944 TREATY  
AND  
WATER PASSING TO MEXICO IN EXCESS OF TREATY REQUIREMENTS  
CALENDAR YEAR 1998

09/07/99

(ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
DELIVERY AT NORTH INTERNATIONAL BOUNDARY 1/	635356	754394	528257	277093	222444	196597	203291	144335	303804	242184	368947	719001	4595703
DELIVERY AT SOUTH INT. LAND BOUNDARY	9669	9975	10009	9798	10636	9241	8807	9321	10239	11716	12125	11198	122734
TOTAL DELIVERY IN SATISFACTION OF TREATY	645024	764369	538266	286891	233081	205838	212098	153656	314048	253899	381072	730199	4718441
TO MEXICO AS SCHEDULED 2/	56750	113499	181082	161403	192030	196292	210312	144212	105522	111900	113499	113499	1700000
TO MEXICO IN EXCESS OF SCHEDULE 3/	588274	650870	357184	125488	41051	9546	1786	9444	208526	141999	267573	616700	3018441
BYPASS PURSUANT TO MINUTE 242	10612	12714	11328	6637	7453	8765	6930	6563	8045	12127	11179	11416	113769

1/ Includes wasteway deliveries to the river limitrophe in satisfaction of the treaty.

2/ Includes 200,000 acre-feet scheduled surplus under Paragraph (E) Article 15 of the 1944 treaty with Mexico.

3/ Water that is lost to the United States through releases into the Colorado River above Morelos Dam in excess of Lower Basin delivery orders and Mexican Treaty requirements. These excess waters exceed water orders in Mexico and are generally not diverted for beneficial use in Mexico.

RECORDS OF DIVERSIONS OF WATER FROM THE  
MAINSTREAM OF THE GILA AND SAN FRANCISCO RIVERS  
AND THE CONSUMPTIVE USE OF SUCH WATER, FOR THE BENEFIT  
OF THE GILA NATIONAL FOREST IN ACCORDANCE WITH  
ARTICLE V(E) OF THE DECREE OF  
THE SUPREME COURT OF THE UNITED STATES IN  
ARIZONA v. CALIFORNIA DATED MARCH 9, 1964

CALENDAR YEAR 1998

DIVERSIONS FROM MAINSTREAM OF GILA AND SAN FRANCISCO RIVERS  
AND  
CONSUMPTIVE USE OF SUCH WATER FOR BENEFIT OF THE GILA NATIONAL FOREST  
CALENDAR YEAR 1998

09/07/99

(ACRE-FEET)

WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
GILA RIVER	DIVERSION	0	0	0	0	0	0	0	0	0	0	0	0	0
	CONSUMPTIVE USE	0	0	0	0	0	0	0	0	0	0	0	0	0
SAN FRANCISCO RIVER	DIVERSION	0	0	0	0	0	0	0	0	0	0	0	0	0
	CONSUMPTIVE USE	0	0	0	0	0	0	0	0	0	0	0	0	0