

UNITED STATES
DEPARTMENT OF THE INTERIOR
Donald P. Hodel, Secretary

BUREAU OF RECLAMATION
C. Dale Duvall
Commissioner

LOWER COLORADO REGION
Edward M. Hallenbeck
Regional Director

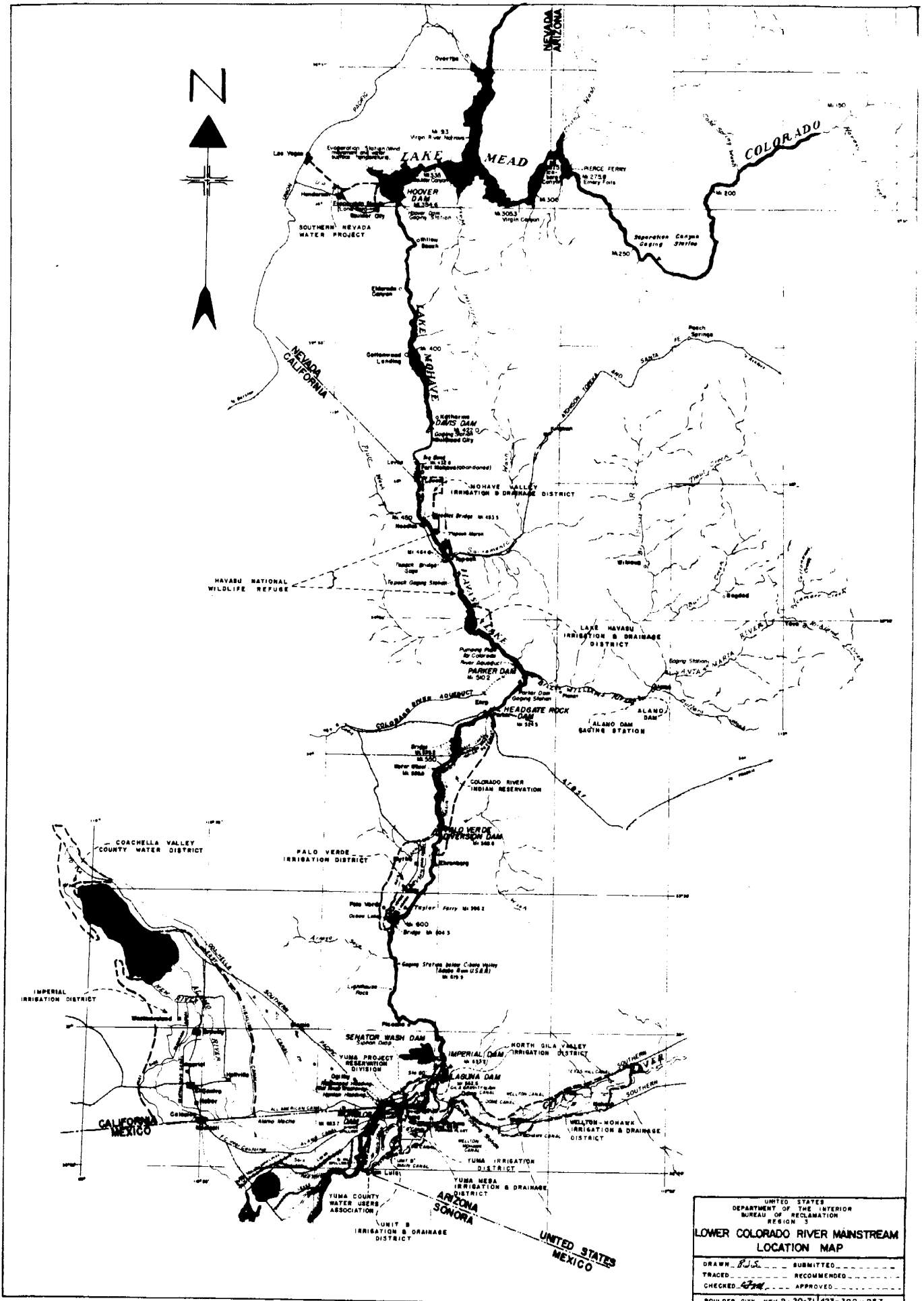
COMPILATION OF RECORDS IN
ACCORDANCE WITH ARTICLE V OF THE
DECREE OF THE SUPREME COURT OF
THE UNITED STATES IN
ARIZONA v. CALIFORNIA DATED MARCH 9, 1964
CALENDAR YEAR 1986

Division of Water and Land Operations
Boulder City, Nevada

July 1988

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UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF RECLAMATION
 REGION 3
**LOWER COLORADO RIVER MAINSTREAM
 LOCATION MAP**
 DRAWN *B.J.S.* SUBMITTED _____
 TRACED _____ RECOMMENDED _____
 CHECKED *6/74* APPROVED _____
 BOULDER CITY, NEV. 9-20-71 423-300-957

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 1986

The following tabulations for calendar year 1986 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 riverflow 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 near Parker, Arizona." The diversions are made at Headgate Rock Dam.

RELEASES OF WATER THROUGH REGULATORY STRUCTURES
 CONTROLLED BY THE UNITED STATES
 CALENDAR YEAR 1986

VIA)

STRUCTURE	(ACRE-FEET)												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
HOOPER DAM	1619000	1045000	1614000	1407000	2049000	1730000	1630000	1426000	1351000	1179000	1057000	1440000	17547000
DAVIS DAM	1365000	1110000	1526000	1476000	1966000	1741000	1740000	1575000	1406000	1115000	1082000	1331000	17433000
PARKER DAM	1333000	1020000	1428000	1308000	1807000	1636000	1519000	1446000	1294000	1047000	971700	1158000	15968000
HEADGATE ROCK DAM 1/	1371000	986500	1374000	1249000	1743000	1562000	1445000	1376000	1246000	1018000	948900	1135000	15405000
PALO VERDE DAM 2/	1268000	909500	1239000	1140000	1592000	1442000	1303000	1241000	1127000	958000	900100	1103000	14218000
IMPERIAL DAM 3/	597600	393400	461500	380900	746500	707000	555900	442100	329000	255900	341300	439600	5651000
LAGUNA DAM	623900	405100	460500	410000	762300	711100	533300	447700	379400	266300	330000	436500	57666000

1/ COLORADO RIVER BELOW PARKER DAM LESS DIVERSION AT HEADGATE ROCK DAM.
 2/ MEASURED THROUGH THE GATES OF PALO VERDE DAM.
 3/ INCLUDES DIVERSION TO MITTRY LAKE.

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 1986

The following tabulations for calendar year 1986 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 by water user agencies which have contracts with the United States. 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, Fish and Wildlife Service, and water user agencies. Diversions to All-American Canal and Gila Gravity Main Canal at Imperial Dam were assigned to each user based on deliveries to each user at its turnout from the canal and a prorated amount of the conveyance loss from the canal. The loss proration was based on the quantity delivered to each user and the length of the canal through which it was carried.

The tables also show estimates of water use by water users other than those which have contracts with the United States. Records of quantities of water pumped by permittees under the Lower Colorado River Land Use Program and by others are incomplete or not available. Consequently, estimates of pumpage from the mainstream, from both the river and the wells, are shown for each State. Pumping from the underground was considered from only those wells located in the flood plain of the Colorado River between the toes of the slopes on either side of the valley. Supplemental sheets are enclosed which show the estimates of water pumped by each diverter between Davis Dam and the International Boundary.

The estimate of diversion by pumping during 1986 was made by two basic methods: (1) For most electric pumps, diversion was computed on a monthly basis from power records and a "kilowatthour per acre-foot factor" that was determined by discharge measurement; (2) For pumps other than electric, a consumptive use factor of 6 acre-feet per irrigated acre per year was used. Irrigated acres were determined by field inventory during the year made with the aid of aerial photographs and orthophotomaps which were taken during May-August 1976.

There are undetermined amounts of unmeasured return flow reaching the Colorado River by means of underground flow from aquifers underlying water user areas. Also, the return flow to Lake Mead from Las Vegas Wash contains some ground water-originated return flow mixed with Colorado River return flow. A Task Force on Unmeasured Return Flows to the Lower Colorado River, consisting of State and Federal members, was organized during 1970 to provide advice and guidance to Reclamation and the U.S. Geological Survey which are jointly conducting a program to determine the location and amounts of such unmeasured return flows. Studies to determine unmeasured return flows are continuing, and when these quantities are determined in a mutually acceptable manner, such amounts are anticipated to be credited to the affected users and States in making the ultimate annual consumptive use computations. The tabulations for calendar year 1986 do include acceptable determinations of the appropriate Colorado River return flows accruing to Lake Mead from Las Vegas Wash for the State of Nevada and a portion of the flows from the Yuma Mesa Division for the State of Arizona.

DIVERIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF ARIZONA

WATER USER	(ACRE-FEET) SHEET 1 OF 5												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1/
LAKE HEAD NATIONAL RECREATION AREA DIVERION FROM LAKE MOHAVE	19	16	30	33	45	40	40	43	33	25	24	15	364
DIVERION RETURN CONSUMPTIVE USE													
L. C. R. D. PROJECT (DAVIS DAM) DIVERION AT DAVIS DAM	1	1	2	2	3	5	6	7	6	4	2	1	40
DIVERION RETURN CONSUMPTIVE USE													
MOHAVE COUNTY PARKS DIVERION AT DAVIS DAM	5	6	7	13	18	47	31	29	30	13	13	11	223
DIVERION RETURN CONSUMPTIVE USE													
MOHAVE WATER CONSERVATION DISTRICT PUMPED FROM WELLS	11	10	11	16	22	25	25	23	21	20	17	15	216
DIVERION RETURN CONSUMPTIVE USE													
MOHAVE VALLEY 1 & D. DISTRICT PUMPED FROM WELLS AND DIVERIED FROM INLET CHANNEL TO HAVASU REFUGE	894	951	1395	1921	1806	2851	3464	2394	1915	1103	837	555	20086
DIVERION RETURN CONSUMPTIVE USE													
FORT MOHAVE INDIAN RESERVATION 6 PUMPS AND WELLS IN FLOOD PLAIN	0	0	0	8630	1545	12760	8999	9301	336	7	0	0	41578
DIVERION RETURN CONSUMPTIVE USE													
HAVASU NATIONAL WILDLIFE REFUGE INLET-NH NE NW SEC 33 T9N R22W G&SRM	2394	1684	1615	1246	1289	4625	6579	744	3013	7361	5518	2168	38236
DIVERION RETURN CONSUMPTIVE USE													
LAKE HAVASU IRRIGATION AND DRAINAGE DISTRICT PUMPED FROM WELLS	563	484	692	806	1006	1149	1201	1184	1093	781	695	540	10104
DIVERION RETURN CONSUMPTIVE USE													
CENTRAL ARIZONA PROJECT PUMPED FROM LAKE HAVASU	15	16	1279	9584	10318	16900	22349	32265	14910	0	0	0	107636
DIVERION RETURN CONSUMPTIVE USE													

FINAL RECORDS

DIVERIONS FROM MAINSTREAM AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF ARIZONA

V (8)

FINAL RECORDS (ACRE- FEET) SHEET 2 OF 5

WATER USER	ACRE- FEET												DEC TOTALS 1/
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
CONSOLIDATED WATER UTILITIES LTD. PUMPED FROM RIVER	20	21	24	26	33	37	36	35	30	25	26	21	334
DIVERSION RETURN CONSUMPTIVE USE													
TOWN OF PARKER 1 WELL-NW NW SEC 7 T9N R19M G8SRM	61	43	63	80	105	120	122	127	92	80	68	47	1008
DIVERSION RETURN CONSUMPTIVE USE													
COLORADO RIVER INDIAN RESERVATION DIVERSION AT HEADGATE ROCK DAM PUMPED FROM 2 WELLS IN PARKER SW NE SE SEC 2 T9N R21W G8SRM 6 PUMPS NW SW NW SEC 14 T4N R22W G8SRM	12375	33011	53941	58910	63365	73548	73719	70470	48040	29336	22786	22622	562123
DIVERSION RETURN CONSUMPTIVE USE	1	0	1	1	1	1	1	1	1	1	1	1	11
DIVERSION 2/ RETURN CONSUMPTIVE USE	47	46	55	93	116	132	135	134	82	71	43	50	1004
RETURN CONSUMPTIVE USE	16251	15213	22162	23249	24467	22010	28634	28231	26126	23429	17118	18668	265758
DIVERSION RETURN CONSUMPTIVE USE	-3828	17844	31835	35755	39015	51671	45221	42374	21997	5979	5712	3805	297380
EHRENBURG IMPROVEMENT ASSN 1 PUMP SW SEC 3 T3N R22W G8SRM	10	9	11	12	17	20	22	28	19	15	13	12	188
DIVERSION RETURN CONSUMPTIVE USE													
GIBONA VALLEY IRRIGATION DISTRICT 5 PUMPS SEC'S 20 & 21 T1N R23M G8SRM	335	1110	2586	1954	2157	3120	3263	2576	1506	627	436	119	19789
DIVERSION 2/ RETURN CONSUMPTIVE USE													
CIBOLA NATIONAL WILDLIFE REFUGE 3 PUMPS	486	38	210	299	520	524	581	382	857	765	765	959	6386
DIVERSION RETURN CONSUMPTIVE USE													
IMPERIAL NATIONAL WILDLIFE REFUGE 2 WELLS SEC 13 T5S R22W G8SRM	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERSION RETURN CONSUMPTIVE USE													
YUMA PROVING GROUND DIVERSION AT IMPERIAL DAM	2	0	3	1	0	0	0	0	0	0	0	2	8
DIVERSION RETURN CONSUMPTIVE USE													

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF ARIZONA

V (B)

FINAL RECORDS

SHEET 3 OF 5

WATER USER	(ACRE-FEET)												TOTALS 1/
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
HARREN AULT CONTRACTORS DIVERSION AT IMPERIAL DAM	642	737	932	604	483	736	783	785	325	163	642	92	6924
DIVERSION RETURN CONSUMPTIVE USE													
WELTON-MOHAWK I. & D. DISTRICT DIVERSION AT IMPERIAL DAM	21090	26366	41680	50691	45444	49229	44002	50419	41782	22191	20757	14807	428458
DIVERSION RETURN 3/	9921	8934	10308	9723	10227	9025	8610	9025	9079	10705	10493	12472	118522
CONSUMPTIVE USE	11169	17432	31372	40968	35217	40204	35392	41394	32703	11486	10264	2335	309936
CITY OF YUMA DIVERSION AT IMPERIAL DAM	1206	1062	1403	1546	1809	1803	1830	1915	1493	1459	1250	1181	17957
DIVERSION RETURN	612	569	656	637	372	570	602	645	630	638	632	634	7197
CONSUMPTIVE USE	594	493	747	909	1437	1233	1228	1270	863	821	618	547	10760
MARINE CORPS AIR STATION (YUMA) DIVERSION AT IMPERIAL DAM	88	89	130	195	258	288	307	351	206	207	96	43	2258
DIVERSION RETURN													
CONSUMPTIVE USE													
SOUTHERN PACIFIC COMPANY DIVERSION AT IMPERIAL DAM	4	4	4	4	4	4	4	4	4	4	4	4	48
DIVERSION RETURN													
CONSUMPTIVE USE													
COUNTY OF YUMA DIVERSION AT IMPERIAL DAM	1	1	1	1	1	1	1	1	1	1	1	1	12
DIVERSION RETURN													
CONSUMPTIVE USE													
YUMA MESA FRUIT GROWERS ASSN. DIVERSION AT IMPERIAL DAM	1	1	1	1	1	1	1	1	1	1	1	1	12
DIVERSION RETURN													
CONSUMPTIVE USE													
UNIVERSITY OF ARIZONA DIVERSION AT IMPERIAL DAM	36	36	70	38	36	89	101	84	83	41	58	35	717
DIVERSION RETURN													
CONSUMPTIVE USE													

DIVERIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF ARIZONA

WATER USER	(ACRE-FEET)												SHEET 4 OF 5
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
YUMA UNION HIGH SCHOOL DIVERION AT IMPERIAL DAM	5	13	14	22	37	41	34	24	25	28	10	6	259
DIVERION RETURN													
CONSUMPTIVE USE													
CAMILLE ALEC. JR. DIVERION AT IMPERIAL DAM	0	1	0	0	0	0	0	0	0	1	2	1	5
DIVERION RETURN													
CONSUMPTIVE USE													
DESERT LAWN MEMORIAL DIVERION AT IMPERIAL DAM	11	9	12	12	5	11	8	10	11	11	7	0	107
DIVERION RETURN													
CONSUMPTIVE USE													
NORTH GILA VALLEY IRRIGATION DISTRICT DIVERION AT IMPERIAL DAM 7/	3622	4014	5399	5948	5919	4710	3685	3449	4246	3753	3070	1977	49772
DIVERION RETURN	2370	2383	2757	2968	3007	2776	2362	1935	2525	3042	2622	1697	30444
CONSUMPTIVE USE	1252	1631	2642	2980	2912	1934	1303	1514	1721	711	448	280	19328
YUMA IRRIGATION DISTRICT DIVERION AT IMPERIAL DAM 6/ PUMPED FROM PRIVATE WELLS	3684	3510	5153	6280	5315	4182	4307	5267	7012	6425	5103	3566	53804
DIVERION RETURN	505	671	634	760	910	934	1179	1238	1320	951	531	463	10096
CONSUMPTIVE USE	567	551	782	962	841	665	641	824	1093	1018	797	589	9310
YUMA MESA 1 - & D. DISTRICT DIVERION AT IMPERIAL DAM 6/	12882	12243	16711	22527	25723	29220	28914	28625	20935	16431	12151	6705	233067
DIVERION RETURN	1231	1353	1784	2231	2902	1178	1882	1743	2227	1805	1809	1661	21806
CONSUMPTIVE USE	11651	10890	14927	20296	22821	28042	27032	26882	18708	14626	10342	5044	211261
PUMPED FROM SOUTH GILA WELLS 6/	5595	3390	4477	4637	5661	5443	5748	5258	4544	5589	5689	5391	61422
RETURN 4/													
UNIT "B" 1 & D. DISTRICT DIVERION AT IMPERIAL DAM 6/ 6E/	2182	1985	2310	3233	3693	3985	4193	3764	2977	2576	2038	1541	34477
DIVERION RETURN	217	238	308	388	506	202	323	301	384	312	310	287	3776
CONSUMPTIVE USE	1965	1747	2002	2845	3187	3783	3870	3463	2593	2264	1728	1254	30701

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF ARIZONA

WATER USER	(ACRE-FEET)												DEC TOTALS 1/
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
FINAL RECORDS													
YUMA COUNTY WATER USERS ASSOCIATION													
DIVERSION AT IMPERIAL DAM	17137	18068	28443	32464	27690	23094	25148	25993	26344	31521	19910	13932	289744
RETURN	595	475	543	504	455	442	465	678	496	504	431	413	6001
CONSUMPTIVE USE	10133	8909	10358	11410	10748	8938	8861	8529	10955	12251	12437	10467	123996
	7599	9634	18628	21558	17397	14598	16752	18142	15885	19774	7904	3878	171749
COCOPAH INDIAN RESERVATION													
DIVERSION AT IMPERIAL DAM	56	66	29	150	28	86	203	176	38	272	280	146	1530
RETURN	77	90	230	503	363	479	584	541	776	219	189	173	4174
CONSUMPTIVE USE	0	0	0	1	0	0	1	0	0	1	1	0	4
	133	156	259	652	391	515	786	717	814	490	468	319	5700
OTHER USERS PUMPING FROM COLORADO RIVER AND WELLS IN FLOOD PLAIN													
DAVIS DAM TO INTERNATIONAL BOUNDARY	4655	1627	3363	3653	4616	5012	5131	4741	3297	3364	2712	2238	44409
ARIZONA TOTALS	85718	108514	168987	212763	205157	240201	241433	247809	183266	130357	100497	74463	1999165
RETURN	46897	41540	53592	56206	58731	50807	57664	56491	57553	58790	51908	52046	642235
CONSUMPTIVE USE	38821	66974	115395	156557	146426	189394	183769	191318	125703	71567	48589	22417	1356930

NOTE: THE TERM 'CONSUMPTIVE USE' IN THIS TABULATION MEANS MEASURED DIVERSIONS INCLUDING GROUNDWATER PUMPING, LESS MEASURED RETURN FLOW AND LESS CURRENT ESTIMATED UNMEASURED RETURN FLOW TO THE RIVER.

- 1/ NO SURFACE RETURNS UNLESS SHOWN ON REPORT.
- 2/ CALCULATED FROM MONTHLY POWER RECORDS.
- 3/ THIS FIGURE MAY INCLUDE SOME GILA RIVER WATER. NO EFFORT HAS BEEN MADE IN THIS OR PAST REPORTS TO SEGREGATE THE GILA RIVER COMPONENT FROM THE COLORADO RIVER COMPONENT IN THE WELTON-MOHAWK DRAINAGE AS NO METHODOLOGY HAS YET BEEN DEVELOPED THEREFOR. SUCH AN EFFORT WILL BE MADE IN FUTURE YEARS, AS DEEMED APPROPRIATE SINCE WELTON-MOHAWK IS NOT ENTITLED TO RETURN CREDIT FOR GILA RIVER WATER. THIS FIGURE INCLUDES 110,052 ACRE-FEET OF WELTON-MOHAWK DRAINAGE DELIVERED TO MEXICO IN EXCESS OF MINIMUM TREATY REQUIREMENTS PURSUANT TO PROVISIONS OF MINUTE NO. 242.
- 4/ PUMPED FROM UNDERGROUND AND UNASSIGNED TO DISTRICT AS RETURNS INCLUDE QUANTITIES OF DRAINAGE FROM YUMA MESA, 'UNIT B', AS WELL AS FROM SOUTH GILA VALLEY.
- 5/ DETAILS ON ARIZONA SUPPLEMENTAL SHEETS 1-3
- 6/ SUMMARY FOR THE YUMA MESA DIVISION, CONSISTING OF THE NORTH GILA VALLEY IRRIGATION DISTRICT, THE YUMA IRRIGATION DISTRICT, AND THE YUMA MESA IRRIGATION, AND DRAINAGE DISTRICT, IS AS FOLLOWS.

ITEM	ANNUAL TOTALS (ACRE-FEET)
DIVERSION AT IMPERIAL DAM A/	342643
PUMPED FROM WELLS	10115
SURFACE RETURNS FROM SOUTH GILA VALLEY	938
RETURN FROM NORTH GILA VALLEY	11531
RETURN FROM SOUTH GILA VALLEY	61423
RETURN FLOW YUMA MESA OUTLET DRAIN B/	22442
RETURN FLOW PROTECTIVE AND REGULATORY PUMPING UNIT C/	2730
ESTIMATED UNMEASURED GROUNDWATER RETURN FLOW D/	39755
SUBTOTAL RETURN FLOW E/	138819
CONSUMPTIVE USE (SEE NOTE ABOVE)	213939

- (A) TOTAL FOR THE NORTH GILA VALLEY, THE YUMA IRRIGATION, AND THE YUMA MESA IRRIGATION AND DRAINAGE DISTRICTS.
- (B) ESTIMATED AT 85 PERCENT OF THE YUMA MESA OUTLET DRAIN (19,076 ACRE-FEET) WITH BALANCE CREDITED TO 'UNIT B'.
- (C) ESTIMATED AT 85 PERCENT OF PROTECTIVE AND REGULATORY PUMPING UNIT (2,370 ACRE-FEET) 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) 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 UNDERGROUND FLOWS ARE RECOVERED BY PUMPING FROM WELLS ON THE COCOPAH INDIAN RESERVATION AND IN THE YUMA AREA, AND BY SOME OF THE SURFACE DRAINS IN THE YUMA AREA. EFFORTS WILL BE MADE TO AT LEAST QUANTIFY THESE RETURN FLOWS WITHIN BROAD LIMITS BY RESPECTIVE WATER USER ENTITIES IN FUTURE YEARS.

DIVERIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF ARIZONA

WATER USER	SUPPLEMENTAL SHEETS												TOTALS	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC		
RAYNER, JACK JR. 1 PUMP SW 34 SE SEC 34 T4N R22W G&SRM	35	55	674	103	138	197	487	170	487	63	92	85	2586	2/
ARAKELIAN, GEORGE 1 PUMP SE 14 SE SEC 16 T3N R22W G&SRM	2484	0	0	0	0	0	0	0	0	0	0	0	2484	2/
SILLER, JACK 1 PUMP NW 34 NW SEC 14 T4N R22W G&SRM	264	260	454	654	847	923	597	1034	382	746	442	227	6830	2/
TOMERY, ADRIAN 1 PUMP SE 34 NW SEC 21 T1N R23W G&SRM													3600	
BLM PERMITTEES													91	
SUBTOTALS-DAVIS DAM TO IMPERIAL DAM	2783	315	1128	757	985	1120	1084	1204	869	809	534	312	11900	
	863	97	349	234	305	347	336	373	276	250	165	96	3691	
PRATT, L. 1 WELL - 1 SEC 14 T7S R22W G&SRM													420	
DHILIN, ARLIN 1 WELL SE SW 34 SEC 7 T8S R22W G&SRM	4	38	225	45	166	179	250	205	196	4	42	55	1409	2/
1 WELL SW NE SE SEC 8 T8S R22W G&SRM	0	46	3	74	59	81	39	54	10	11	23	39	439	2/

DIVERIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF ARIZONA

V (B)

SUPPLEMENTAL SHEETS		(ACRE-FEET) SHEET 2 OF 4													
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1/	
WATER USER		469	420	729	1058	1234	1323	1180	1092	320	753	723	727	10028	2/
STURGES, STEVE															
9 WELLS SEC 18 T8S R 21M & SEC. 'S 13 & 14 T8S R22M G&SRM															
DIVERSION															
YDMFELMAN, R.															720
1 WELL NW SW SW SEC 17 T8S R22H G&SRM															
DIVERSION															
AUZA, PETE		52	140	175	132	149	110	176	131	127	120	100	100	1512	2/
1 WELL SE NW SW SEC 18 T8S R22H G&SRM															
DIVERSION															
1 PUMP SE SE NE SEC 24 T8S R22H G&SRM														1590	
DIVERSION															
1 WELL & 1 SE SE NW SEC 24 T8S R22H G&SRM		0	0	50	269	385	482	547	316	326	281	313	160	3129	2/
DIVERSION															
OTT, JUDD T.		6	5	0	13	16	18	35	14	23	34	17	8	189	2/
1 WELL NW NE NW SEC 30 T8S R22H G&SRM															
DIVERSION															
1 WELL SE SW SW SEC 19 T8S R22H G&SRM		99	83	72	50	55	56	100	99	81	102	41	48	886	2/
DIVERSION															
1 WELL SW SW SE SEC 24 T8S R23H G&SRM		0	48	0	41	64	51	77	82	74	72	24	27	560	2/
DIVERSION															
CAMERON BROS.															
1 WELL SE NE SW SEC 24 T8S R22H G&SRM		0	0	0	0	0	0	0	20	17	17	2	0	56	2/
DIVERSION															
1 WELL NW SW SW SEC 24 T8S R22H G&SRM		0	0	0	0	0	0	0	0	39	51	19	13	122	2/
DIVERSION															
HARP, R.															1458
1 WELL SE NE NE SEC 13 T8S R23H G&SRM															
DIVERSION															

DIVERIONS FROM MAINSTREAM AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF ARIZONA

SUPPLEMENTAL SHEETS		[ACRE - FEET] SHEET 3 OF 4												
WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1/
PEACH	DIVERSTON	0	0	0	37	47	42	62	60	59	53	0	0	360 2/
1 WELL SW SE SE SEC 22 T8S R23W G85RM														
ARIZONA PRODUCTS	DIVERSTON	49	32	31	46	48	58	54	43	80	27	50	45	563 2/
1 WELL NE SE SW SEC 23 T8S R23W G85RM														
POWER, BILL	DIVERSTON													1980
1 PUMP SW SW NE SEC 30 T16S R22E SBM														
POWER, BILL	DIVERSTON													1920
1 PUMP SW SW NE SEC 30 T16S R22E SBM														
HALL, ANSEL	DIVERSTON													480
1 PUMP NW SW NW SEC 36 T16S R21E SBM														
YUCCA POWERPLANT	DIVERSTON													472
1 WELL NE NW SW SEC 36 T16S R21E SBM														
SLADE, DWAIN	DIVERSTON	5	5	4	21	21	12	18	21	45	0	20	22	194 2/
1 WELL NE SE SW SEC 28 T16S R22E SBM														

DIVERIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF ARIZONA

V (B)

SUPPLEMENTAL SHEETS

(ACRE- FEET) SHEET 4 OF 4

WATER USER	DIVERSION	(ACRE- FEET)												TOTALS 1/	
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	1/	2/
JENNINGS, A. 1 PUMP SW NE SE SEC 29 T16S R22E SBM		9	17	6	38	39	21	9	35	80	57	8	12	331	2/
ARIZONA SUBTOTALS	DIVERSION 3/	693	834	1295	1824	2283	2433	2547	2172	1477	1582	1382	1256	19778	
IMPERIAL DAM TO INTERNATIONAL BOUNDARY	DIVERSION 4/	316	381	591	838	1043	1112	1164	992	675	723	631	574	9040	
ARIZONA TOTALS	DIVERSION	4655	1627	3363	3653	4616	5012	5131	4741	3297	3364	2712	2238	44409	

1/ CALCULATED BY ASSUMING AN ANNUAL DIVERSION OF 6 ACRE- FEET PER IRRIGATED ACRE UNLESS OTHERWISE NOTED.
2/ CALCULATED FROM MONTHLY POWER RECORDS AND POWER-DISCHARGE MEASUREMENTS WHERE AVAILABLE, AND WHERE POWER-DISCHARGE MEASUREMENTS WERE NOT AVAILABLE CALCULATED FROM POWER-DISCHARGE RATE.
3/ TOTAL OF ITEMS FOR USERS FOR WHICH MONTHLY DISTRIBUTION IS SHOWN.
4/ TOTAL OF ITEMS FOR USERS FOR WHICH MONTHLY DISTRIBUTION IS NOT SHOWN, DISTRIBUTED ACCORDING TO MONTHLY DISTRIBUTION OF OTHER USERS IN IMMEDIATE AREA.

DIVERSTIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF CALIFORNIA

V (B)

(ALBRE-FEET) SHEET 1 OF 3

FINAL RECORDS

WATER USER	(ALBRE-FEET)												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1/
FORT MOHAVE INDIAN RESERVATION PUMPED FROM RIVER AND WELLS	0	0	0	4209	753	6224	4389	4537	164	0	0	0	20276
DIVERSION RETURN													
CONSUMPTIVE USE													
CITY OF NEEDLES													
4 WELLS NM SH SEC 29 T8N R23E S8M	117	110	167	203	340	403	428	362	291	195	138	107	2861
DIVERSION													
RETURN	43	37	40	43	50	54	58	63	59	43	40	40	570
CONSUMPTIVE USE	74	73	127	160	290	349	370	299	232	152	98	67	2291
SAN BERNARDINO COUNTY													
1 WELL	1	1	1	2	2	2	3	2	2	2	1	1	19
DIVERSION													
RETURN													
CONSUMPTIVE USE													
METROPOLITAN WATER DISTRICT													
DIVERSION FROM LAKE HAVASU	83252	99057	109392	110652	115628	110912	112603	113051	110472	113480	110524	114253	1303276
DIVERSION													
RETURN 5/	338	297	321	292	290	275	303	283	289	316	294	328	3626
CONSUMPTIVE USE	82914	98760	109071	110360	115338	110637	112300	112768	110183	113164	110230	113925	1299650
PARKER DAM AND GOVERNMENT CAMP													
DIVERSION AT PARKER DAM	5	8	12	19	25	32	33	33	28	20	15	8	238
DIVERSION													
RETURN													
CONSUMPTIVE USE													
COLORADO RIVER INDIAN RESERVATION													
PUMPED FROM 11 PUMPS AND WELLS	76	254	414	183	386	583	626	759	328	210	117	99	4035
DIVERSION 4/													
RETURN	35	35	41	84	79	118	138	62	74	81	45	42	834
CONSUMPTIVE USE													
PALO VERDE IRRIGATION DISTRICT													
DIVERSION FROM PALO VERDE DAM	36978	52948	81433	94553	90705	96735	102825	108288	81490	47312	42723	36986	872976
DIVERSION													
RETURN	30463	30017	40271	40755	43901	42750	46400	47743	48029	45756	38698	28173	482956
CONSUMPTIVE USE	6515	22931	41162	53798	46804	53885	56425	60545	33461	1556	4025	8813	390020

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF CALIFORNIA

V (B)

FINAL RECORDS

(ACRE- FEET) SHEET 2 OF 3

WATER USER	ACRE- FEET												DEC TOTALS 1/
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
YUMA PROJECT RES. DIV. INDIAN UNIT													
DIVERSION AT IMPERIAL DAM	1853	2429	3069	3364	2424	2033	3335	2986	1667	3515	1533	1688	29896
RETURN	4	12	13	15	12	9	17	15	9	19	8	10	143
CONSUMPTIVE USE	1849	2417	3056	3349	2412	2024	3318	2971	1658	3496	1525	1678	29763
YUMA PROJECT RES. DIV. BARD UNIT													
DIVERSION AT IMPERIAL DAM	2514	2995	4256	6113	5342	4205	4690	4353	2824	3825	2586	2590	46293
RETURN	4	8	11	16	14	12	15	13	9	12	10	9	133
CONSUMPTIVE USE	2510	2987	4245	6097	5328	4193	4675	4340	2815	3813	2576	2581	46160
RETURNS FROM YUMA PROJECT RESERVATION DIVISION RETURNS													
RETURN 2/	2652	1549	3107	2978	1385	2585	2418	1622	2490	3216	2896	2724	29622
IMPERIAL IRRIGATION DISTRICT													
DIVERSION AT IMPERIAL DAM	114480	167715	260805	337692	305371	273468	293472	317524	227541	206244	146613	66988	2717913
RETURN	347	1901	2884	3819	3530	3157	3507	3826	2769	2587	1884	827	31038
CONSUMPTIVE USE	114133	165814	257921	333873	301841	270311	289965	313698	224772	203657	144729	66161	2686875
COACHELLA VALLEY WATER DISTRICT													
DIVERSION AT IMPERIAL DAM	15393	19639	27447	35187	38243	38421	40804	43887	32510	22898	14205	12406	341040
RETURN	47	223	304	398	443	444	488	529	395	288	183	154	3806
CONSUMPTIVE USE	15346	19416	27143	34789	37800	37977	40316	43358	32115	22610	14022	12252	337144
HUTCHESON, JOHN E.													
1 PUMP													
SEC 27 T165 R23E S8M													1
WETHORE, MARK M.													
1 WELL													
SEC 21 T165 R22E S8M													9
SHERMAN, MARGARET I.													
1 WELL													
SEC 21 T165 R22E S8M													24

DIVERSTIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF CALIFORNIA

(AIR)

FINAL RECORDS		(ACR- FEET) SHEET 3 OF 3												
WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1/
BLY, JAMES R. 1 HELL SEC 21 T16S R22E SBM	DIVERSION RETURN CONSUMPTIVE USE	6	5	6	9	10	13	12	12	10	8	6	4	101
GLYNN, EDWARD 1 HELL SEC 21 T16S R22E SBM	DIVERSION RETURN CONSUMPTIVE USE													1
CITY OF WINTERRAVEN 1 HELL SE SE NE SEC 27 T16S R22E SBM	DIVERSION 6/ RETURN CONSUMPTIVE USE	1067	534	1622	1435	1642	1448	2118	2103	1691	1003	412	789	15854
OTHER USERS PUMPING FROM COLORADO RIVER AND HELLS IN FLOOD PLAIN DAVIS DAM TO INTERNATIONAL BOUNDARY	DIVERSION 3/ RETURN CONSUMPTIVE USE	255777	345730	488665	593705	560950	534597	565476	597959	459092	398792	318918	235961	5355660
		33898	34044	46951	48316	49625	49286	53206	54094	54049	52237	44013	32265	551984
		221879	311686	441714	545389	511325	485311	512270	543865	405043	346555	274905	203696	4803676
CALIFORNIA TOTALS														

- NOTE: THE TERM 'CONSUMPTIVE USE' IN THIS TABULATION MEANS MEASURED DIVERSIONS INCLUDING UNDERGROUND PUMPING, LESS MEASURED RETURN FLOW AND LESS CURRENT ESTIMATED UNMEASURED RETURN FLOW TO THE RIVER.
- 1/ NO SURFACE RETURNS UNLESS SHOWN ON REPORT.
 - 2/ RETURNS UNASSIGNED INCLUDE UNKNOWN QUANTITIES OF DRAINAGE FROM THE INDIAN UNIT AND THE BARD UNIT IN THE RESERVATION DIVISION BUT EXCLUDES SEEPAGE FROM THE ALL-AMERICAN CANAL.
 - 3/ DETAILS ON CALIFORNIA SUPPLEMENTAL SHEETS 1-3.
 - 4/ CALCULATED FROM MONTHLY POWER RECORDS AND POWER-DISCHARGE MEASUREMENT WHERE AVAILABLE, AND WHERE POWER-DISCHARGE MEASUREMENTS WERE NOT AVAILABLE CALCULATED FROM AVERAGE POWER-DISCHARGE RATE.
 - 5/ ESTIMATE BASED ON MEASURED REGULATORY RESERVOIRS SEEPAGE RETURNS LESS AN ESTIMATED AMOUNT OF PHREATOPHYTE USE.
 - 6/ TOTAL OF ITEMS FOR WHICH MONTHLY DISTRIBUTION IS NOT SHOWN, DISTRIBUTED ACCORDING TO MONTHLY DISTRIBUTION OF OTHER USERS IN IMMEDIATE AREA.

DIVERIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF CALIFORNIA

V (B)

SUPPLEMENTAL SHEETS		(ACRE-FEET) SHEET 1 OF 3															
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1/			
WATER USER																	
SOTO BROTHERS																	
	1 WELL																900
	SW NE SE SEC 36 T11N R22E																
	SBM																
KENNEDY, LARRY																	1200
	1 WELL																
	NW NE NW SEC 31 T11N R22E																
	SBM																
MAJORS, GENE																	720
	1 WELL																
	SE NE NW SEC 31 T11N R21E																
	SBM																
BLM PERMITTEES																	200
SUBTOTALS-DAVIS DAM TO IMPERIAL DAM		706	79	286	192	249	284	275	305	225	205	135	79	3020			
LAND, (RALPH)																	
	1 WELL																
	SW SE SE SEC 35 T15S R23E	64	60	120	184	3	73	66	156	156	67	0	0	949	2/		
	SBM																
	1 WELL																
	SE SE NW SEC 22 T16S R23E	73	42	24	88	61	141	96	62	76	46	7	7	723	2/		
	SBM																
POWER, PETE																	1992
	1 WELL																
	NW SW SW SEC 14, T16S R23E																
	SBM																
PEREZ, F. (SLADE)																	
	1 WELL																
	NE SE SW SEC 6 T8S R22H	24	58	91	111	170	52	0	73	0	33	19	348	979	2/		
	G&SRH																

D = 152 126 207 222 271 324 358 345 270 220 170 120 200
P:

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF CALIFORNIA

V (B)

SUPPLEMENTAL SHEETS		(ACRE-FEET) SHEET 2 OF 3													
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1/	
WATER USER		2	3	55	66	56	0	41	0	62	14	8	7	314	2/
SPENDER, M. 1 WELL SH NE SW SEC 9 T16S R23E G&SRM															
MARTIN, M. (A. DEES) 1 PUMP NE NW NW SEC 1 T8S R23W G&SRM		0	0	30	0	0	0	70	50	0	0	0	0	150	2/
1 PUMP SE NE NW SEC 1 T8S R23W SRM		0	0	49	0	4	0	219	238	215	64	0	0	789	2/
SCHAFFER, F. (R. HARP) 1 WELL SW SE NE SEC 2 T8S R23W G&SRM														330	
TAYLOR BROTHERS 1 WELL NE SE SE SEC 2 T8S R23W G&SRM		0	0	0	27	0	12	18	16	10	0	0	0	83	2/
WILSON, (R. HARP) 1 WELL NE NW NW SEC 12 T8S R23W G&SRM		24	21	47	29	56	71	35	94	91	44	44	59	615	2/
EASTERDAY, K. 1 WELL SW SW SE SEC 1 T8S R23W G&SRM		0	37	25	86	107	94	98	103	82	57	75	43	807	2/
DEES, ALEX 1 WELL SE NE SE SEC 1 T8S R23W GRM		73	39	139	150	273	207	239	225	244	158	18	29	1794	2/

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF CALIFORNIA

(ACRE- FEET) SHEET 3 OF 3

SUPPLEMENTAL SHEETS

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1/
EVANS, E. (R. HARP) 1 WELL SE NE NE SEC 12 T8S R23H G&SRM	0	0	204	3	0	3	204	143	29	0	0	3	589 2/
1 WELL SW NE SE SEC 12 T8S R23H G&SRM													882
EASTERDAY, KENNETH 1 WELL NW SE SW SEC 12 T8S R23H G&SRM	6	75	152	169	244	154	131	104	135	116	29	10	1325 2/
SMITH, F. (P. POWER) 1 WELL NE SW SE SEC 11 T8S R23H G&SRM	5	7	67	16	72	67	167	86	1	0	8	27	523 2/
CALIFORNIA SUBTOTALS IMPERIAL DAM TO INTERNATIONAL BOUNDARY	271	342	1003	929	1046	874	1384	1350	1101	599	208	533	9640
DIVERSION 3/ DIVERSION 4/	90	113	333	314	347	290	459	448	365	199	69	177	3204
CALIFORNIA TOTALS	1067	534	1622	1435	1642	1448	2118	2103	1691	1003	412	789	15864

1/ CALCULATED BY ASSUMING AN ANNUAL DIVERSION OF 6 ACRE- FEET PER IRRIGATED ACRE UNLESS OTHERWISE NOTED.
2/ CALCULATED FROM MONTHLY POWER RECORDS AND POWER-DISCHARGE MEASUREMENTS WHERE AVAILABLE, AND WHERE POWER-DISCHARGE MEASUREMENTS WERE NOT AVAILABLE CALCULATED FROM POWER-DISCHARGE RATE.
3/ TOTAL OF ITEMS FOR USERS FOR WHICH MONTHLY DISTRIBUTION IS SHOWN
4/ TOTAL OF ITEMS FOR USERS FOR WHICH MONTHLY DISTRIBUTION IS NOT SHOWN. DISTRIBUTED ACCORDING TO MONTHLY DISTRIBUTION OF OTHER USERS IN IMMEDIATE AREA.

FINAL RECORDS

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF NEVADA

V (B)

WATER USER	ACRE-FEET												DEC TOTALS 1/
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SFP	OCT	NOV	DEC	
BOULDER CANYON PROJECT DIVERSION AT HOOVER DAM	10	8	8	7	11	10	27	15	13	12	11	11	143
DIVERSION RETURN													
CONSUMPTIVE USE													
ROBERT B. GRIFFITH WATER PROJECT DIVERSION AT SADDLE ISLAND, LAKE MEAD	10086	8697	13027	14083	16858	16960	18131	18605	14636	11654	10366	8585	161748
DIVERSION RETURN													
CONSUMPTIVE USE													
LAKE MEAD NATIONAL RECREATION AREA DIVERSION AT LAKE MEAD	46	42	59	67	80	89	95	102	79	72	57	45	833
DIVERSION RETURN													
CONSUMPTIVE USE													
BASIC MANAGEMENT INC. DIVERSION AT SADDLE ISLAND, LAKE MEAD	767	697	844	872	1148	1178	1292	1356	1178	967	850	856	12005
DIVERSION RETURN													
CONSUMPTIVE USE													
NEVADA STATE DEPARTMENT OF FISH AND GAME DIVERSION AT SADDLE ISLAND, LAKE MEAD	383	361	375	344	325	318	351	373	373	376	377	390	4346
DIVERSION RETURN	382	361	375	343	325	317	350	373	373	376	377	389	4341
CONSUMPTIVE USE	1	0	0	1	0	1	1	0	0	0	0	1	5
PACIFIC COAST BUILDING PRODUCTS INC. DIVERSION AT GYPSUM WASH, LAKE MEAD	52	43	52	54	53	51	50	47	50	55	44	45	596
DIVERSION RETURN													
CONSUMPTIVE USE													
SOUTHERN CALIFORNIA EDISON COMPANY PUMPED FROM SEC 24 T32S R66E M0B&M	980	1062	1281	1333	1482	1253	1336	1117	1292	881	334	911	13262
DIVERSION RETURN													
CONSUMPTIVE USE													
CLARK COUNTY PARKS & RECREATION DEPT. 1 PUMP SEC 1 T32S R66E M0B&M	0	0	1	1	1	1	1	1	1	1	0	0	8
DIVERSION 2/ RETURN													
CONSUMPTIVE USE													

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF NEVADA

V (8)

FINAL RECORDS	(ACRE-FEET)												SHEET 2 OF 3
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
WATER USER													
BIG BEND WATER DISTRICT 1 PUMP SEC 13 T32S R66E MDB&M	55	51	69	86	96	123	137	135	115	107	97	83	1154
	DIVERSION RETURN												
	CONSUMPTIVE USE												
WIEBKE, ETHEL F. 1 PUMP SEC 33 T32S R66E MDB&M													8
	DIVERSION 2/ RETURN												
	CONSUMPTIVE USE												
PORTENIER, WARREN E. 1 PUMP SEC 33 T32S R66E MDB&M													42
	DIVERSION 2/ RETURN												
	CONSUMPTIVE USE												
SOFCR, IRWIN 1 PUMP SEC 33 T32S R66E MDB&M													8
	DIVERSION 2/ RETURN												
	CONSUMPTIVE USE												
KNIGHT, JOHN B. 1 PUMP SEC 33 T32S R66E MDB&M													5
	DIVERSION 2/ RETURN												
	CONSUMPTIVE USE												
BOY SCOUTS OF AMERICA 1 PUMP SEC 5 T33S R66E MDB&M													10
	DIVERSION 2/ RETURN												
	CONSUMPTIVE USE												

DIVERSIONS FROM MAINSTREAM AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1986
STATE OF NEVADA

FINAL RECORDS

(ACRE- FEET) SHEET 3 OF 3

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1/
LAS VEGAS WASH RETURNS	6060	5400	6240	6130	6460	6360	6740	7060	6320	7290	7140	6410	77610
RETURN 4/													
NEVADA TOTALS	12379	10961	15716	16847	20054	19983	21420	21751	17797	14125	12136	10926	194168 3/
DIVERSION RETURN	6442	5761	6615	6473	6785	6677	7090	7433	6693	7666	7517	6799	81951
CONSUMPTIVE USE	5937	5200	9101	10374	13269	13306	14330	14318	11104	6459	4619	4127	112217 3/

NOTE THE TERM 'CONSUMPTIVE USE' IN THIS TABULATION MEANS MEASURED DIVERSIONS INCLUDING UNDERGROUND PUMPING, LESS MEASURED RETURN FLOW AND LESS CURRENT ESTIMATED UNMEASURED RETURN FLOW TO THE RIVER.

1/ NO SURFACE RETURNS UNLESS SHOWN ON REPORT.

2/ REPORTS ANNUALLY.

3/ THE MONTHLY TOTALS DO NOT ADD TO THE ANNUAL TOTAL BECAUSE OF NONAVAILABILITY OF MONTHLY VALUES FOOTNOTED 2/.

4/ ESTIMATED BASED ON HISTORIC USE METHOD ADOPTED BY THE TASK FORCE ON UNMEASURED RETURN FLOWS ON AUGUST 28, 1984.

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 1986

The following tabulations for calendar year 1986 show records of releases of mainstream water pursuant to orders, therefore, 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 orders are received for diversions from the Colorado River in Nevada so no sheet is included in 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 1986
STATE OF ARIZONA

WATER USER	(ACRE FEET) SHEET 1 OF 3												DEC	TOTALS	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC			
CENTRAL ARIZONA PROJECT DIVERSION AT LAKE HAVASU	0	0	11281	13826	2742	4160	4276	1215	12642	303	1540	2176	54161	0	0
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	0	0	11281	13826	2742	4160	4276	1215	12642	303	1540	2176	54161	0	0
COLORADO RIVER INDIAN RESERVATION DIVERSION AT HEADGATE ROCK	305	1240	373	1594	3182	1230	2140	1676	1541	1156	603	912	15952	0	0
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	0	40	180	1440	262	119	155	298	278	52	171	52	3047	0	0
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	305	1200	193	1151	2920	1111	1885	1378	1263	949	414	860	13729	0	0
YUMA PROVING GROUND U. S. ARMY DIVERSION AT IMPERIAL DAM 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORTH GILA VALLEY I. D. DIVERSION AT IMPERIAL DAM	895	383	629	502	768	666	1474	1295	131	1426	1565	1283	11017	0	0
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	268	36	248	420	559	504	857	690	89	125	415	399	4610	0	0
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	627	347	381	82	209	162	617	605	42	841	997	884	5794	0	0
WARREN ACT CONTRACTORS GILA PROJECT DISTRICTS DIVERSION AT IMPERIAL DAM 1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

RELEASE OF MAINSTREAM WATER PURSUANT TO ORDERS
BUT NOT DIVERTED BY PARTY ORDERING SAME
AND
VIC)

QUANTITY OF SUCH WATER DELIVERED TO MEXICO IN SATISFACTION OF MEXICAN TREATY OR DIVERTED BY OTHERS
CALENDAR YEAR 1986
STATE OF ARIZONA

(ACRE- FEET) SHEET 2 OF 3

WATER USER	(ACRE- FEET) SHEET 2 OF 3												TOTALS
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
HELLTON-MOHAWK I. & D. DISTRICT DIVERSION AT IMPERIAL DAM	3227	2043	2130	1089	2382	2928	5062	6190	4915	6698	4147	5820	46631
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	859	541	510	460	655	887	736	817	1269	698	294	371	8097
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	2368	1502	1620	629	1727	2041	4326	5373	3646	3729	289	5449	32699
YUMA IRRIGATION DISTRICT DIVERSION AT IMPERIAL DAM	946	1624	635	448	801	541	859	904	498	1527	694	583	10060
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	230	855	313	234	510	307	403	448	58	143	91	42	3434
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	716	969	322	214	291	234	456	456	440	751	424	541	5814
YUMA MESA I. & D. DISTRICT DIVERSION AT IMPERIAL DAM	3189	3445	2180	1632	1799	861	1468	1012	2446	3255	4624	3312	29223
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	1065	1371	1000	849	1377	678	296	371	520	226	706	482	8941
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	2124	2074	1180	783	422	183	1172	641	1926	2085	3565	2830	18965
UNIT "B" I. & D. DISTRICT DIVERSION AT IMPERIAL DAM	389	361	446	264	337	280	438	466	877	349	280	512	4999
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	141	58	123	139	177	179	202	228	409	24	32	79	1791
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	248	303	323	125	160	101	236	238	468	265	242	433	3142
CITY OF YUMA DIVERSION AT IMPERIAL DAM	0	0	0	0	0	0	0	0	0	0	0	0	0
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	136	66	387	210	94	130	1023
DIVERTED BY OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	0	0	0	0	0	0	96	56	353	113	65	92	775
	0	0	0	0	0	0	40	10	34	36	14	38	172

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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 1986
STATE OF ARIZONA

WATER USER	(ACRE- FEET) SHEET 3 OF 3												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
YUMA COUNTY WATER USERS ASSN. DIVERSION AT IMPERIAL DAM	3454	2100	1703	1221	2495	2067	2756	1958	967	3035	2942	3368	28066
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	1628	1343	446	334	1247	1697	1942	1645	882	1634	2039	2393	17230
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	1826	757	1257	887	1248	370	814	313	85	1025	447	975	10005
COCOPAH INDIAN RESERVATION DIVERSION AT IMPERIAL DAM	9	6	1	5	2	6	16	11	1	22	34	25	138
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	4	4	0	1	1	5	11	9	1	4	24	18	92
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	5	2	1	4	1	1	5	2	0	12	5	7	45
ARIZONA TOTALS	12414	11202	19378	20581	14508	12739	18625	14793	24405	17981	16523	18121	201270
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	4195	4048	2820	3877	4788	4376	4698	4562	3859	3019	3837	3928	48007
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	8219	7154	16558	17701	9720	8363	13927	10231	20546	9997	7937	14193	144546

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 1986
STATE OF CALIFORNIA

(ACRE-FEET) SHEET 1 OF 2

WATER USER	(ACRE-FEET) SHEET 1 OF 2												TOTALS
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
METROPOLITAN WATER DISTRICT DIVERSION AT LAKE HAVASU	7258	15603	4068	3348	2172	2888	5197	4749	3528	4320	3476	3547	60154
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	7258	15603	4068	3348	2172	2888	5197	4749	3528	4320	3476	3547	60154
PALO VERDE IRRIGATION DISTRICT DIVERSION AT PALO VERDE DAM	2834	4058	3027	3257	6726	4693	3630	3792	4663	2967	1968	2360	43975
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	75	1135	1650	381	926	476	605	347	1053	902	244	750	8544
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	2759	2923	1377	2876	5800	4217	3025	3445	3610	889	1351	1610	33882
YUMA PROJECT RESV. DIVISION INDIAN UNIT DIVERSION AT IMPERIAL DAM	1196	1119	921	726	1730	1447	745	854	698	1081	1575	1540	13632
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	681	636	682	489	1485	1439	530	609	630	606	897	1153	9837
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	515	483	239	237	245	8	215	245	68	83	415	387	3140
YUMA PROJECT RESV. DIVISION INDIAN UNIT DIVERSION AT IMPERIAL DAM	726	924	547	422	876	459	352	675	688	734	1027	699	8129
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	414	526	405	285	752	457	250	482	620	412	585	523	5711
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	312	398	142	137	124	2	102	193	68	55	271	176	1990
IMPERIAL IRRIGATION DISTRICT DIVERSION AT IMPERIAL DAM	5367	11179	11074	9467	1920	296	5881	4249	0	15198	3187	1654	69482
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	1025	268	1686	839	494	139	149	1642	0	60	169	301	6772
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	4342	10911	9358	8628	1426	157	5732	2607	0	184	237	1363	44945
IMPERIAL IRRIGATION DISTRICT DIVERSION AT IMPERIAL DAM	0	0	0	0	0	0	0	0	0	14954	2781	0	17735
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	0	0	0	0	0	0	0	0	0	0	0	0	0
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0

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 1986
 STATE OF CALIFORNIA

(ACRE-FEET) SHEET 2 OF 2

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
COACHELLA VALLEY WATER DIST. DIVERSION AT IMPERIAL DAM	573	2134	1593	847	569	137	337	399	307	1557	841	1065	10359
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	349	1087	500	545	478	137	202	0	296	847	432	673	5496
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	224	1047	1093	302	91	0	135	399	11	224	246	442	4214
CALIFORNIA TOTALS	17954	35017	21230	18067	13993	9920	16142	14718	9884	25857	12074	10875	205731
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
DIVERTED BY OTHERS	2544	3652	4923	2539	4135	2648	1736	3080	2599	2827	2327	3350	36360
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	15410	31365	16277	15528	9858	7272	14406	11638	7285	5755	5996	7525	148315
CALIFORNIA TOTALS	0	0	0	0	0	0	0	0	0	14954	2781	0	17735

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 1986

DELIVERIES TO MEXICO IN SATISFACTION OF PART III OF 1944 TREATY
 AND
 WATER PASSING TO MEXICO IN EXCESS OF TREATY REQUIREMENTS
 CALENDAR YEAR 1986

(ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS
DELIVERIES TO MEXICO IN SATISFACTION OF TREATY 1/	55371	50013	92285	226997	162142	183074	223159	223556	117749	87151	101339	177164	1700000
PASSING TO MEXICO IN EXCESS OF TREATY REQUIREMENTS 2/ 3/	1007788	736348	841034	544198	969946	929757	746046	668751	706419	713903	614465	745126	9223781

DELIVERIES TO MEXICO IN SATISFACTION OF TREATY 1/

PASSING TO MEXICO IN EXCESS OF TREATY REQUIREMENTS 2/ 3/

1/ INCLUDES 200,000 ACRE-FEET SCHEDULED UNDER PARAGRAPH (E) ARTICLE 15 OF THE 1944 TREATY WITH MEXICO.

2/ INCLUDES 129,704 ACRE-FEET DELIVERED PURSUANT TO MINUTE 242.

3/ INCLUDES HOOVER DAM FLOOD CONTROL RELEASES.

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 1986

DIVERSIONS OF WATER FROM MAINSTREAM OF GILA AND SAN FRANCISCO RIVERS
 AND
 CONSUMPTIVE USE OF SUCH WATER FOR BENEFIT OF THE GILA NATIONAL FOREST
 CALENDAR YEAR 1986

V (E)

WATER USER	(ACRE- FEET)													
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS	
GILA RIVER													0	0
SAN FRANCISCO RIVER													0	0