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

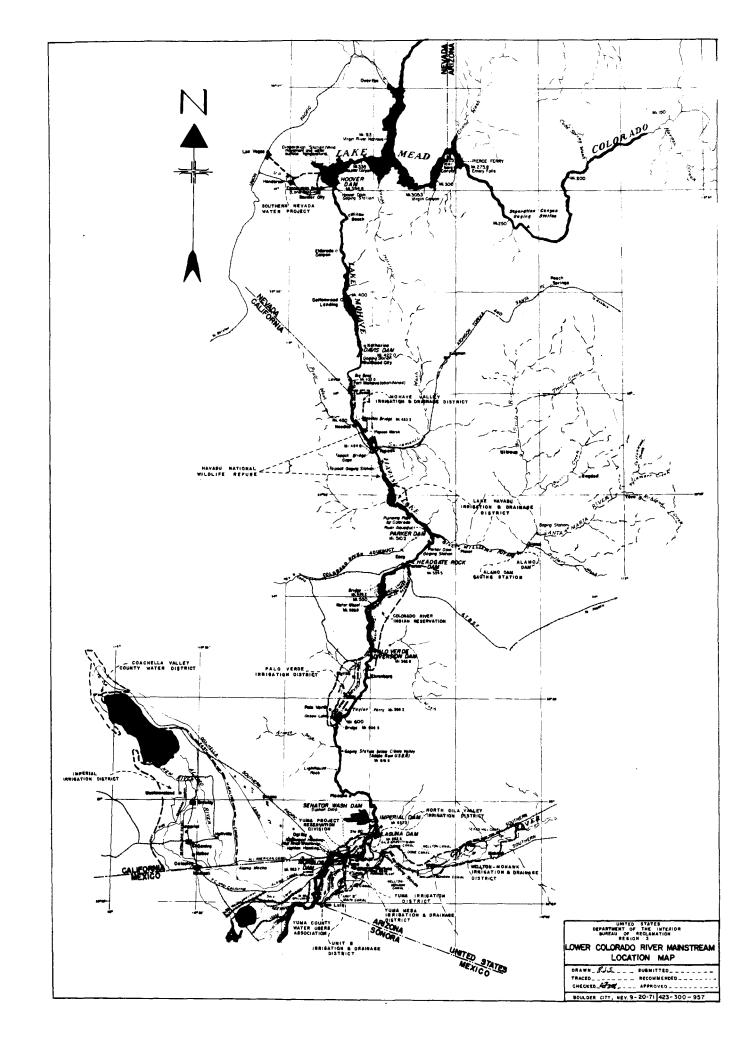
CALENDAR YEAR 1986

Division of Water and Land Operations Boulder City, Nevada

July 1988

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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 "Diversions for Colorado River Indian Reservation near Parker, Arizona." The diversions are made at Headgate Rock Dam.

V (A)

(ACRE-FEET)

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

STRUCTURE	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS	
HOOVER DAM	1619000	1045000	1614000	1407000	2049000	1730000	1630000	1426000	135 1000	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	15 19000	1446000	1294000	1047000	971700	1158000	15968000	
TANNER WAIT	1333000	1020000	1420000	1300000	1007000	1030000	7313000	744000	1254000	1017000	371700	1130000	13320000	
HEADGATE ROCK DAM 1/	1321000	986900	1374000	1249000	1743000	1562000	1445000	1376000	1246000	1018000	948900	1135000	15405000	
PALO VERDE DAM 2/	1268000	909500	1239000	1140000	1592000	1442000	1303000	1241000	1122000	958000	900100	1103000	14218000	
massic sure	500000		45.500	*****	745544	707000	F.F.G.A.	440100	200000	055000	241000	420500	E C E 10.00	
IMPERIAL DAM 3/	597600	393400	461500	380900	746500	707000	555900	442100	329000	255900	341800	439600	5651000	
LAGUNA DAM	623900	405100	460500	410000	762300	711100	533300	447700	379400	266300	330000	436500	5766000	

^{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.

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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 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.

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

	FINAL RECOR	os			STATE O	n ANILU	N.4				(ACRE - I	EET) S	HEET 1 0	f 5	
WATER USER			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	ост	NOV	DEC	TOTALS 1/
LAKE MEAD NATIONAL RECREA DIVERSION FROM LAKE MOHA	ATION AREA	DIVERSION RETURN CONSUMPTIVE USE	19	16	30	33	46	40	40	43	33	25	24	15	364
L.C.R.D. PROJECT IDAVIS C DIVERSION AT DAVIS DAM	DAM)	DIVERSION RETURN CONSUMPTIVE USE	1	1	2	2	3	5	6	7	6	4	2	1	40
MOHAVE COUNTY PARKS DIVERSION AT DAVIS DAM		DIVERSION RETURN CONSUMPTIVE USE	5	6	7	13	18	47	31	29	30	13	13	11	223
MOHAVE WATER CONSERVATION PUMPED FROM WELLS	N DISTRICT	DIVERSION RETURN CONSUMPTIVE USE	11	10	11	16	22	25	25	23	21	20	17	15	216
MOHAVE VALLEY I. & D. DIS PUMPED FROM WELLS AND DI INLET CHANNEL TO HAVASU F	IVERTED FROM	DIVERSION RETURN CONSUMPTIVE USE	894	951	1395	1921	1806	2851	3464	2394	1915	1103	837	555	20086
FORT MOHAVE INDIAN RESERV 6 PUMPS AND WELLS IN FL		DIVERSION RETURN CONSUMPTIVE USE	0	0	o	8630	1545	12760	8999	9301	336	7	0	0	41578
HAVASU NATIONAL HILDLIFE INLET-NH NE NH SEC 33 TS		DIVERSION RETURN CONSUMPTIVE USE	2394	1684	1615	1246	1289	4625	6579	744	3013	7361	5518	2168	38236
LAKE HAVASU IRRIGATION ANDISTRICT PUMPED FROM HEL		DIVERSION RETURN CONSUMPTIVE USE	563	484	692	806	1006	1149	1201	1184	1003	781	695	540	10104
CENTRAL ARIZONA PROJECT PUMPED FROM LAKE HAVASU		DIVERSION RETURN CONSUMPTIVE USE	15	16	1279	9584	10318	16900	22349	32265	14910	0	0	0	107636

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

STATE OF ARIZ

FINAL RECOR	DS			STATE	UF AKIZU	AM				(ACRE -	FEETI	SHEET 2	OF 5		
WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	oct	NOV	DEC	TOTALS 1.	/
CONSOLIDATED WATER UTILITIES LTD. PUMPED FROM RIVER	DIVERSION RETURN CONSUMPTIVE USE	20	21	24	26	33	37	36	35	30	25	26	21	334	
TOWN OF PARKER 1 MELL-NW NW NW SEC 7 TOW R19H G8SRM	DIVERSION RETURN CONSUMPTIVE USE	61	43	63	80	105	120	122	127	92	80	68	47	1008	
COLORADO RIVER INDIAN RESERVATION DIVERSION AT HEADGATE ROCK DAM PUMPED FROM 2 HELLS IN PARKER SH NE SE SEC 2 19N R21H G&SRM	DIVERSION DIVERSION	12375 1	33011 0	53941 1	58910 1	63365 1	735 48 1	73719 1	70470 1	48040 1	29336 1	22786 1	22622 1	562123 11	
6 PUMPS NH SH NH SEC 14 T4N R22H G8SRM	DIVERSION 2/ RETURN CONSUMPTIVE USE	47 16251 -3828	46 15213 17844	55 22162 31835	93 23249 35755	116 24467 39015	132 22010 51671	135 28634 45221	134 28231 42374	82 26126 21997	71 23429 5979	43 17118 5712	50 18868 3805	1004 265758 297380	
EHRENBURG IMPROVEMENT ASSN. 1 PUMP SH SEC 3 T3N R22H G&SRM	DIVERSION RETURN CONSUMPTIVE USE	10	9	11	12	17	20	22	28	19	15	13	12	188	
CIBOLA VALLEY IRRIGATION DISTRICT / 5 PUMPS SEC'S 20 & 21 TIN R23H G&SRM	DIVERSION 2/ RETURN CONSUMPTIVE USE	335	1110	2586	1954	2157	3120	3263	2576	1506	627	436	119	19789	
CIBOLA NATIONAL WILDLIFE REFUGE 3 PUMPS	DIVERSION RETURN CONSUMPTIVE USE	486	38	210	299	520	52 4	581	382	857	765	765	959	6386	
IMPERIAL NATIONAL HILDLIFE REFUGE 2 HELLS SEC 13 15S R22H G&SRM	DIVERSION RETURN CONSUMPTIVE USE	0	0	0	0	0	0	o	0	0	0	0	٥	o	
YUMA PROVING GROUND DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	2	0	3	1	0	0	0	0	0	0	0	2	8	

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

FINAL RE	CORDS									(ACRE -	FEET)	SHEET 3	OF 5		
HATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	130	NOV	DEC	TOTALS 1/	•
MARREN ACT CONTRACTORS DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	642	737	932	604	483	736	783	785	325	163	642	92	6924	•
MELLTON-MOHAWK I. 8 D. DISTRICT DIVERSION AT IMPERIAL DAM	DIVERSION RETURN 3/ CONSUMPTIVE USE	21090 9921 11169	26366 8934 17432	41680 10308 31372	50691 9723 40968	45444 10227 35217	49229 9025 40204	44002 8610 35392	50419 9025 41394	41782 9079 32703	22191 10705 11486	20757 10493 10264	12472	428458 118522 309936	
CITY OF YUMA DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	1206 612 594	1062 569 493	1403 656 747	1546 637 909	1809 372 1437	1803 570 1233	1830 602 1228	1915 645 1270	1493 630 863	1459 638 821	1250 632 618	1181 634 547	17957 7197 10760	
MARINE CORPS AIR STATION (YUMA) DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	88	89	130	195	258	288	307	351	206	207	96	43	2258	
SOUTHERN PACIFIC COMPANY DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	4	4	4	4	4	4	4	4	4	4	4	4	48	
COUNTY OF YUMA DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	1	1	1	1	1	1	1	1	1	1	1	1	12	
YUMA MESA FRUIT GROWERS ASSN. DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	1	1		1	1	1	1	1	1	1	1	1	12	
UNIVERSITY OF ARIZONA DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	36	36	70	38	36	89	101	84	83	41	68	35	7 17	

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

FINAL RECORDS (ACRE-FEET) SHEET 4 OF 5

FINAL RECUR	เทว									IAURE-	FEETI	SHEEF 4 L	JF 5	
WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	100	NOV	DEC	TOTALS 1/
YUMA UNION HIGH SCHOOL DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	5	13	14	22	37	41	34	24	25	28	10	6	259
CAMILLE, ALEC. JR. DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	0	1	0	0	0	0	0	0	0	1	2	1	5
DESERT LAHN MEMORIAL DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	11	g	12	12	5	11	8	10	11	11	7	0	107
NORTH GILA VALLEY IRRIGATION DISTRICT DIVERSION AT IMPERIAL DAM 7/	DIVERSION RETURN CONSUMPTIVE USE	3622 2370 1252	4014 2383 1631	5399 2757 2642	5948 2968 2980	5919 3007 2912	4710 2776 1934	3665 2362 1303	3449 1935 1514	4246 2525 1721	3753 3042 711	3070 2622 448	1977 1697 280	49772 30444 19328
YUMA IRRIGATION DISTRICT DIVERSION AT IMPERIAL DAM 6/ PUMPED FROM PRIVATE WELLS	DIVERSION DIVERSION RETURN CONSUMPTIVE USE	3684 505 567 3622	3510 671 551 3630	5153 634 782 5005	6280 760 962 6078	5315 910 841 5384	4182 934 665 4451	4307 1179 641 4845	5267 1238 824 5681	7012 1320 1093 7239	6425 951 1018 6358	5103 531 797 4837	3566 463 569 3460	59804 10096 9310 60590
YUMA MESA I. & D. DISTRICT DIVERSION AT IMPERIAL DAM 6/	DIVERSION RETURN CONSUMPTIVE USE	12882 1231 11651	12243 1353 10890	16711 1784 14927	22527 2231 20296	25723 2902 22821	29220 1178 28042	28914 1882 27032	28625 1743 26882	20935 2227 18708	16431 1805 14626	12151 1809 10342	6705 1661 5044	233067 21806 211261
PUMPED FROM SOUTH GILA WELLS 6/	RETURN 4/	5595	3390	4477	4637	5661	5443	5748	5258	4544	5589	5689	5391	61422
UNIT "B" I. & D. DISTRICT DIVERSION AT IMPERIAL DAM 6/.6E/	DIVERSION RETURN CONSUMPTIVE USE	2182 217 1965	1985 238 1747	2310 308 2002	3233 388 2845	3693 506 3187	3985 202 3783	4193 323 3870	3764 301 3463	2977 384 2593	2576 312 2264	2038 310 1728	1541 287 1254	34477 3776 30701

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

V (B)

STATE OF ARIZE

FINAL RECOR	IDS									(ACRE -	FEET)	SHEET 5	Of 5	
WATER USER		MAL	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1/
YUMA COUNTY WATER USERS ASSOCIATION DIVERSION AT IMPERIAL DAM PUMPED FROM WELLS GE/	DIVERSION DIVERSION RETURN CONSUMPTIVE USE	17137 595 10133 7599	18068 475 8909 9634	28443 543 10358 18628	32464 504 11410 21558	27690 455 10748 17397	23094 442 8938 14598	25148 465 8861 16752	25993 678 8529 18142	26344 496 10955 15885	31521 504 12251 19774	19910 431 12437 7904	13932 413 10467 3878	289744 6001 123996 171749
COCOPAH INDIAN RESERVATION DIVERSION AT IMPERIAL DAM PUMPED FROM WELLS GE/	DIVERSION DIVERSION RETURN CONSUMPTIVE USE	56 77 0 133	66 90 0 156	29 230 0 259	150 503 1 652	28 363 0 391	86 429 0 515	203 584 1 786	176 541 0 717	38 776 0 814	272 219 1 490	280 189 1 468	146 173 0 319	1530 4174 4 5700
OTHER USERS PUMPING FROM COLORADO RIVER AND MELLS IN FLOOD PLAIN DAVIS DAM TO INTERNATIONAL BOUNDARY	DIVERSION 5/	4655	1627	3363	3653	4616	5012	5131	4741	3297	3364	2712	2238	44409
ARIZONA TOTALS	DIVERSION RETURN CONSUMPTIVE USE	85718 46897 38821	108514 41540 66974	168987 53592 115395	212763 56206 156557	205157 58731 146426	240201 50807 189394	241433 57664 183769	247809 56491 191318	183266 57563 125703	130357 58790 71567	100497 51908 48589	52046	1999165 642235 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 MATER. NO EFFORT HAS BEEN MADE IN THIS OR PAST REPORTS TO SEGREGATE THE GILA RIVER COMPONENT FROM THE COLORADO RIVER COMPONENT IN THE WELLTON-MOHAWK DRAINAGE AS NO METHODOLOGY HAS YET BEEN DEVELOPED THEREFOR. SUCH AN EFFORT WILL BE MADE IN FUTURE YEARS, AS DEEMED APPROPRIATE SINCE WELLTON-MOHAWK IS NOT ENTITLED TO RETURN CREDIT FOR GILA RIVER HATER. THIS FIGURE INCLUDES 110, 052 ACRE-FEET OF WELLTON-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/ SUMMATION 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.

1TEM	ANNUAL TOTALS (ACRE-FEET)
DIVERSION AT IMPERIAL DAM A/	342643
PUMPED FROM WELLS	10115
SURFACE RETURNS FROM SOUTH GILA VALLEY	938
RETURN FLOW NORTH GILA VALLEY	11531
RETURN FLOW SOUTH GILA VALLEY WELLS	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 M	ESA 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, 320 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 HATER USERS ASSOCIATION (YCHUA) ARE UTILIZED TO MEET CONSUMPTIVE USES IN THE UNITED STATES AND IN PARTIAL SALISFACTION OF THE MEXICAN TREATY OBLIGATION. SOME OF THESE UNDERGROUND FLOWS ARE RECOVERED BY PUMPING FROM WELLS ON THE COCOPAH INDIAN RESERVATION AND IN THE YCHUA AREA. AND BY SOME OF THE SURFACE DRAINS IN THE YCHUA AREA. EFFORTS WILL BE MADE TO AT LEAST QUANTIFY THESE RETURN FLOWS HITHIN BROAD LIMITS BY RESPECTIVE HATER USER ENTITIES IN FUTURE YEARS.

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

SUPPLEMENTAL SHEETS (ACRE-FEET) SHEET 1 OF 4 JAN FEB MAR APR MAY JUN JUL AUG SEP NOV DEC TOTALS 1/ RAYNER, JACK JR. 1 PUMP DIVERSION 2586 2/ SW SW SE SEC 34 T4N R22W G&SRM ARAKELIAN, GEORGE 1 PUMP DIVERSION 2484 2/ SE NW SE SEC 16 T3N R22W G&SRM SILER, JACK 1 PUMP DIVERSION 6830 2/ NH SH NH SEC 14 T4N R22H G&SRM TOWERY, ADRIN 1PUMP DIVERSION SE SH NH SEC 21 TIN R23H G&SRM BLM PERMITTEES DIVERSION SUBTOTALS-DAVIS DAM TO IMPERIAL DAM DIVERSION 3/ DIVERSION 4/ PRATT, L. 1 WELL - 1 DIVERSION SEC 14 T7S R22W G&SRM

1409 2/

439 2/

DULIN, ARLIN

1 WELL

G&SRM

1 WELL

G&SRM

SE SH SH SEC 7 T8S R22W

SW NE SE SEC 8 T8S R22W

DIVERSION

DIVERSION

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOM AND CONSUMPTIVE USE OF SUCH MATER CALFNDAR YEAR 1986 STATE OF ARIZONA

SUPPLEMENTAL SHEETS (ACRE-FEET) SHEET 2 OF 4 JAN FEB MAR APR MAY JUN JUL AUG SEP DEC TOTALS 1/ WATER USER OCT NOV STURGES, STEVE 727 10028 2/ 9 WELLS DIVERSION 469 420 729 1058 1234 1323 1180 1092 320 753 723 SEC 18 T8S R 21W & SEC. 'S 13 & 14 T8S R22W G&SRM YOWELMAN, R. 1 WELL DIVERSION 720 NW SW SW SEC 17 T8S R22W G&SRM AUZA, PETE 1 WELL DIVERSION 52 140 175 132 149 110 176 131 127 120 100 1512 2/ SE NW SW SEC 18 T8S R22W G&SRM 1 PUMP DIVERSION 1590 SE SE NE SEC 24 18S R22W G&SRM 1 WELL 8 1 DIVERSION 0 0 50 269 385 482 547 316 326 281 313 160 3129 2/ SE SE NW SEC 24 T8S R22W G&SRM OTT, JUDD T. DIVERSION 34 17 8 189 2/ 1 WELL 6 5 0 13 16 18 35 14 23 NH NE NW SEC 30 T8S R22W G&SRM 1 WELL DIVERSION 99 83 72 50 55 56 100 99 81 102 41 48 886 2/ SE SH SH SEC 19 T8S R22H G&SRM 1 WELL DIVERSION 0 48 0 41 64 51 77 82 74 72 24 27 560 2/ SH SH SE SEC 24 TBS R23H G&SRM CAMERON BROS. 56 2/ 1 WELL DIVERSION 0 0 0 20 17 17 2 0 SE NE SH SEC 24 T8S R22H G&SRM 19 13 122 2/ 39 51 1 WELL DIVERSION 0 0 ۵ ٥ 0 NW SW SW SEC24 T8S R22W G&SRM HARP, R. 1458 1 WELL DIVERSION SE NE NE SEC 13 T8S R23H G8SRM

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

SUPPLE	MENTAL SHEETS			STATE O	IF ARIZON	Δ				(ACRE -	FEET) SHE	ET 3 OF	4		
MATER USER		JAN	FEB	MAR	APR	MAY	าเม	JUL	AUG	SEP	ост	NOV	DEC	TOTALS 1	,
PEACH 1 WELL SW SE SE SEC 22 T8S R23H G8SRM	DIVERSION	0	0	0	37	47	42	62	60	59	53	0	0	360 2	?/
ARIZONA PRODUCTS 1 HELL NE SE SH SEC 23 T8S R23H G8SRM	DIVERSION	49	32	31	46	48	58	54	43	80	27	50	45	563 2	2/
POWER, BILL 1 PUMP SM SM NE SEC 30 T16S R22E SBM	DIVERSION													1980	
POWER, BILL • 1 PUMP SH SH NE SEC 30 T16S R22E SBM	DIVERSION													1920	
HALL, ANSIL I PUMP NH SH NH SEC 36 T16S R21E SBM	DIVERSION													480	
YUCCA POMERPLANT 1 WELL NE NH SH SEC 36 T16S R21E SBM	DIVERSION				-									472	
SLADE, DHAINE I HELL NE SE SN SEC 28 T16S R22E SBM	DIVERSION	5	5	4	21	21	12	18	21	45	0	20	22	194 2	!/

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

SUPPLEMENTAL	SHEETS			STATE	IT ARIZUN	д				(ACRE - F	EET) SHE	ET 4 OF	4		
WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1	1/
JENNINGS, A. 1 PUMP SM NE SE SEC 29 T16S R22E SBM	DIVERSION	9	17	6	38	39	21	9	35	80	57	8	12	331	2/
ARIZONA SUBTOTALS IMPERIAL DAM TO INTERNATIONAL BOUNDARY	DIVERSION 3/ DIVERSION 4/	693 316	834 381	1295 591	1824 838	2283 1043	2433 1112	2547 1164	2172 992	1477 675	1582 723	1382 631	1256 574	19778 9040	
ARIZONA IDTALS	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.

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

(ACRE-FEET) SHEET 1 DF 3 FINAL RECORDS DEC TOTALS 1/ APR MAY JUN AUG NOV WATER USER JAN FEB MAR JUL SEP FORT MOHAVE INDIAN RESERVATION 0 20276 PUMPED FROM RIVER AND WELLS DIVERSION RETURN CONSUMPTIVE USE CITY OF NEEDLES 4 WELLS NW SW SEC 29 TON R23E SBM DIVERSION RETURN CONSUMPTIVE USE SAN BERNARDINO COUNTY 1 WELL DIVERSION RETURN CONSUMPTIVE USE METROPOLITAN HATER DISTRICT 99057 109392 110652 115628 110912 112603 113051 110472 113480 110524 114253 1303276 DIVERSION FROM LAKE HAVASU DIVERSION RETURN 5/ 109071 110360 115338 110637 112300 112768 110183 113164 110230 113925 1299650 CONSUMPTIVE USE PARKER DAM AND GOVERNMENT CAMP DIVERSION AT PARKER DAM DIVERSION RETURN CONSUMPTIVE USE COLORADO RIVER INDIAN RESERVATION PUMPED FROM 11 PUMPS AND WELLS DIVERSION 4/ 2 PUMPS-BIG RIVER DIVERSION 4/ RETURN CONSUMPTIVE USE PALO VERDE IRRIGATION DISTRICT 47312 42723 36986 872976 DIVERSION FROM PALO VERDE DAM DIVERSION 52948 81433 96735 102825 28173 482956 RETURN CONSUMPTIVE USE 8813 390020

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

V (B)

FINAL RECO	DRDS			STATE	OF CALIF	ORNIA				(ACRE-	FEET)	SHEET 2	OF 3	
WATER USER		JAN	FE8	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1/
YUMA PROJECT RES. DIV. INDIAN UNIT DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	1853 4 1849	2429 12 2417	3069 13 3056	3364 15 3349	2424 12 2412	2033 9 2024	3335 17 3318	2986 15 2971	1667 9 1658	35 15 19 3496	1533 8 1525	1688 10 1678	29896 143 29753
YUMA PROJECT RES. DIV. BARD UNIT Diversion at imperial dam	DIVERSION RETURN CONSUMPTIVE USE	2514 4 2510	2995 8 2987	4256 11 4245	6113 16 6097	5342 14 5328	4205 12 4193	4690 15 4675	4353 13 4340	2824 9 2815	3825 12 3813	2586 10 2576	2590 9 2581	46293 133 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	DIVERSION RETURN CONSUMPTIVE USE	114480 347 114133	167715 1901 165814	260805 2884 257921	337692 3819 333873	3530	273468 3157 270311	293472 3507 289965	317524 3826 313698	227541 2769 224772	206244 2587 203657	146613 1884 144729	827	2717913 31038 2686875
COACHELLA VALLEY WATER DISTRICT DIVERSION AT IMPERIAL DAM	DIVERSION RETURN CONSUMPTIVE USE	15393 47 15346	19639 223 19416	27447 304 27143	35187 398 34789	38243 443 37800	38421 444 37977	40804 488 40316	43887 529 43358	32510 395 32115	22898 288 22610	14205 183 14022	154	341040 - 3896 337144
HUTCHESON, JOHN E. 1 PUMP SEC 27 T16S R23E SBM	DIVERSION RETURN CONSUMPTIVE USE													1
WETMORE, MARK M. 1 WELL SEC 21 T16S R22E SBM	DIVERSION RETURN CONSUMPTIVE USE													9
SHERMAN, MARGARET T. 1 MELL SEC 21 T16S R22E SBM	DIVERSION REIURN CONSUMPTIVE USE													24

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

FINAL RECORDS (ACRE-FEET) SHEET 3 OF 3 JAN FEB MAR APR MAY JUN JUL AUG SEP OCT BLY, JAMES R. DIVERSION 3 1 WELL SEC 21 T16S R22E SBM RETURN CONSUMPTIVE USE GLYNN, EDWARD 1 WELL DIVERSION SEC 21 T16S R22E SBM RETURN CONSUMPTIVE USE CITY OF WINTERHAVEN 1 WELL SE SE NE SEC 27 T16S R22E SBM DIVERSION 6/ 101 12 RETURN CONSUMPTIVE USE OTHER USERS PUMPING FROM COLORADO RIVER AND WELLS IN FLOOD PLAIN DIVERSION 3/ 1067 534 1622 1435 1642 1448 2118 2103 1691 1003 789 15864 DAVIS DAM TO INTERNATIONAL BOUNDARY CALIFORNIA TOTALS DIVERSION 255777 345730 488665 593705 560950 534597 565476 597959 459092 398792 318918 235961 5355660 54094 54049 52237 44013 32265 551984 RETURN 33898 34044 46951 48316 49625 49286 53206 221879 311686 441714 545389 511325 485311 512270 543865 405043 346555 274905 203896 4803,676 CONSUMPTIVE USE

- 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 QUANITIES 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.

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

	SUPPLEMENT			!	SIATE OF	CALIFOR	RNIA				IACRE -	FEET) SH	EE1 1 OF	3		
	WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	001	NOV		TOTALS 1/	
	SOTO BROTHERS 1 WELL SW NE SE SEC 36 TIIN R22E SBM	DIVERSION				* * - * * *									900	•
<***)	KENNEDY, LARRY 1 WELL NW NE NW SEC 31 T11N R22E SBM	DIVERSION													1200	
	MAJORS, GENE 1 MELL SE NE NH SEC 31 TIIN R21E SBM	DIVERSION								·					720	
			D = 15:	170	205	222	271	329	37.8	342	271	22.7	161 /	59	2120	
₹.	BLM PERMITTEES	DIVERSION	P=								•				200	
	SUBTOTALS-DAVIS DAM TO IMPERIAL DAM	DIVERSION 4/	706	79	286	192	249	284	275	305	225	205	135	79	3020	
20	LAND, (RALPH) 1 MELL SM SE SE SEC 35 T15S R23E SBM	DIVERSION .	64	60	120	184	3	73	66	156	156	67	0	0	949 2/	
	1 WELL SE SE NW SEC 22 T16S R23E SBM	DIVERSION	73	42	24	88	61	141	96	62	76	46	7	7	723 2/	
	POWER, PETE 1 WELL NW SH SH SEC 14, T16S R23E SBM	DIVERSION													1992	
	PEREZ, F. (SLADE) 1 MELL NE SE SM SEC 6 T8S R22M G8SRM	DIVERSION	24	58	91	111	170	52	0	73	0	33	19	348	979 2/	

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

SUPPLEME			31412 0	· CACTIO	11.B			(ACRE-FEET) SHEET 2 OF 3							
HATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	130	NOV	DEC	TOTALS	1/
SPENCER, M. 1 HELL SH NE SH SEC 9 T16S R23E G&SRM	DIVERSION	2	3	55	66	56	0	41	0	62	14	8	7	314	2/
MARTIN, M. (A. DEES) 1 PUMP NE NH NH SEC 1 TBS R23H G85RM	DIVERSION	0	0	30	0	0	٥	70	50	0	0	0	0	150	2/
1 PUMP SE NE NH SEC 1 T8S R23H SRM	DIVERSION	o	0	49	0	4	0	219	238	215	64	0	0	789	2/
SCHAFFER, F. (R. HARP) 1 MELL SM SE NE SEC 2 T8S R23H G8SRM	DIVERSION													330	
TAYLOR BROTHERS 1 MELL NE SE SE SEC 2 T8S R23H G8SRM	DIVERSION	0	0	0	27	0	12	18	16	10	0	0	0	83	2/
MILSON (R. HARP) 1 MELL NE NH NH SEC 12 T8S R23H G8SRM	DIVERSION	24	21	47	29	56	71	35	94	91	44	44	59	615	2/
EASTERDAY, K. 1 HELL SH SH SE SEC 1 T8S R23H G8SRM	DIVERSION	0	37	25	86	107	94	98	103	82	57	75	43	807	2/
DEES, ALEX 1 WELL SE NE SE SEC 1 T85 R23M GRM	DIVERSION	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

SUPPLEMENTA									(ACRE-FEET) SHEET 3 OF 3							
WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	oct	NOV	DEC	TOTALS	1/	
EVANS, E. (R. HARP) 1 HELL SE NE NE SEC 12 T8S R23H G8SBM	DIVERSION	0	0	204	3	0	3	204	143	29	0	0	3	589	2/	
1 HELL SH NE SE SEC 12 T8S R23H G&SRM	DIVERSION													882		
EASTERDAY, KENNETH 1 HELL NH SE SH SEC 12 T8S R23H G8SRM	DIVERSION	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 R23W G8SRM	DIVERSION	5	7	67	16	72	67	167	86	1	0	8	27	523	2/	
CALIFORNIA SUBTOTALS IMPERIAL DAM TO INTERNATIONAL BOUNDARY	DIVERSION 3/ DIVERSION 4/	271 90	342 113	1003 333	929 314	1046 347	874 290	1384 459	1350 448	1101 365	599 199	208 69	533 177	9640 3204		
CALIFORNIA TOTALS	DIVERSION	1067	534	1622	1435	1642	1448	2118	2103	1691	1003	412	789	15,864		

^{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 HHICH 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.

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOM AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1986

STATE OF NEVADA FINAL RECORDS (ACRE-FEET) SHEET 1 OF 3 WATER USER JAN FEB MAR APR MAY JUN JUL AUG SEP OCT DEC TOTALS 1/ BOULDER CANYON PROJECT DIVERSION AT HOOVER DAM DIVERSION RETURN CONSUMPTIVE USE ROBERT B. GRIFFITH WATER PROJECT DIVERSION AT SADDLE ISLAND, LAKE MEAD DIVERSION 8585 161748 RETURN CONSUMPTIVE USE LAKE MEAD NATIONAL RECREATION AREA DIVERSION AT LAKE MEAD DIVERSION RETURN CONSUMPTIVE USE BASIC MANAGEMENT INC. DIVERSION AT SADDLE ISLAND, LAKE MEAD DIVERSION RETURN CONSUMPTIVE USE NEVADA STATE DEPARTMENT OF FISH AND GAME DIVERSION AT SADDLE ISLAND, LAKE MEAD DIVERSION 4341 🕌 CONSUMPTIVE USE PACIFIC COAST BUILDING PRODUCTS INC. DIVERSION AT GYPSUM HASH, LAKE MEAD DIVERSION RETURN CONSUMPTIVE USE SOUTHERN CALIFORNIA EDISON COMPANY PUMPED FROM SEC 24 T32S R66E MDB&M DIVERSION RETURN CONSUMPTIVE USE CLARK COUNTY PARKS & RECREATION DEPT. 1 PUMP SEC 1 T325 R66E MDB&M DIVERSION 2/

> RETURN CONSUMPTIVE USE

DIVERSIONS FROM MAINSTREAM-AVAILABLE RÉTURN FLOM AND CONSUMPTIVE USE OF SUCH MATER CALENDAR YEAR 1986 STATE OF NEVADA

FINAL REC	FINAL RECORDS									(ACRE-I	FEET) S	HEET 2 0	F 3	
WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS 1/
BIG BEND WATER DISTRICT 1 PUMP SEC 13 T32S R66E MDB&M	DIVERSION 55 51 Return Consumptive USE		55 51 £		86	96	123	137	135	115	107	97	83	1154
WIEBKE. ETHYL F. 1 PUMP SEC 33 T32S R6GE MDB&M	DIVERSION 2/ RETURN CONSUMPTIVE USE													8
PORTENIER, WARREN E. 1 PUMP SEC 33 T32S R66E MDB&M	DIVERSION 2/ RETURN CONSUMPTIVE USE													42
SOPER, IRWIN 1 PUMP SEC 33 T32S R66E MDB&M	DIVERSION 2/ RETURN CONSUMPTIVE USE													8
KNIGHT, JOHN B. 1 PUMP SEC 33 T32S R66E MDB&M	DIVERSION 2/ RETURN CONSUMPTIVE USE													5
BOY SCOUIS OF AMERICA 1 PUMP SEC 5 133S REGE MDB&M	DIVERSION 2/ RETURN CONSUMPTIVE USE													10

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOM 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	001	NOV	DEC	TOTALS 1/		
LAS VEGAS WASH RETURNS	RETURN 4/	6060	5400	6240	6130	6460	6360	6740	7060	6320	7290	7140	6410	77610		
NEVADA TOTALS	DIVERSION RETURN CONSUMPTIVE USE	12379 6442 5937	10961 5761 5200	15716 6615 9101	16847 6473 10374	20054 6785 13269	19983 6677 13306	21420 7090 14330	21751 7433 14318	17797 6693 11104	14125 7666 6459	12 136 75 17 46 19	10926 6799 4127	194168 3/ 81951 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 FLOMS ON AUGUST 28. 1984.

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77.6 =

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.

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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.

V (C)

RELEASE OF MAINSTREAM MATER PURSUANT TO ORDERS
BUT NOT DIVERTED BY PARTY ORDERING SAME
AND
QUANTITY OF SUCH MATER DELIVERED TO MEXICO IN SATISFACTION OF MEXICAN TREATY OR DIVERTED BY OTHERS
CALENDAR YEAR 1986
STATE OF ARIZONA

****				STATE U	r akizumi	•			(ACRE-FEET) SHEET 1 OF 3								
WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS			
CENTRAL ARIZONA PROJECT DIVERSION AT LAKE HAVASU	ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN	0	0	11281	13826	2742	4160	4276	1215	12642	303	1540	2176	54161			
	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	Ó	Ó	Ó	0	0			
	DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN	0	0	11281	13826	2742	4160	4276	1215	12642	303	1540	2176	54161			
	EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0			
COLO. RIVER INDIAN RESERVATION DIVERSION AT HEADGATE ROCK	ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN	305	1240	373	1594	3182	1230	2140	1676	1541	1156	603	912	15952			
	SATISFACTION OF TREATY	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			
	DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN	305	1200	193	1151	2920	1111	1985	1378	1263	949	414	860	13725			
	EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0			
YUMA PROVING GROUND U.S. ARMY DIVERSION AT IMPERIAL DAM 1/	ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN	0	0	0	0	0	0	٥	٥	0	0	0	0	0			
	SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0			
	DIVERTED BY OTHERS	Ó	0	Ō	0	Ō	Ō	Ó	0	Ö	0	ō	Ö	Ó			
	DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN	0	0	0	0	0	0	0	0	0	Ó	0	0	0			
	EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0			
NORTH GILA VALLEY I.D. DIVERSION AT IMPERIAL DAM	ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN	895	383	629	502	768	666	1474	1295	131	1426	1565	1283	11017			
	SATISFACTION OF TREATY	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			
	DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN	627	347	381	82	209	162	617	605	42	841	997	884	5794			
	EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0			
WARREN ACT CONTRACTORS GILA PROJECT DISTRICTS	ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN	0	0	0	0	0	0	0	0	0	. 0	C	0	0			
DIVERSION AT IMPERIAL DAM 1/	SATISFACTION OF TREATY	0	0	0	0	0	0	0	o	0	0	0	0	0			
	DIVERTED BY OTHERS	ő	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	Ö	Ö	ŏ	ŏ	ŏ	ŏ			
	DELIVERED TO STORAGE 2/	ŏ	ŏ	ŏ	ŏ	ŏ	ŏ	ő	ŏ	Ô	ŏ	ŏ	ŏ	ŏ			
	DELIVERED TO MEXICO IN		•	•	•	•	•	·	•	-	,		•	·			
	EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0			

AND

V (C)

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

(ACRE-FEET) SHEET 2 OF 3 ------MAR APR MAY JUN JUL AUG JAN FEB SEP NOV DEC TOTALS WELLTON-MOHAWK I. & D. DISTRICT ORDERED BUT NOT DIVERTED 5820 46631 DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN SATISFACTION OF TREATY DIVERTED BY OTHERS DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY YUMA IRRIGATION DISTRICT ORDERED BUT NOT DIVERTED DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN SATISFACTION OF TREATY DIVERTED BY OTHERS DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY YUMA MESA I. & D. DISTRICT ORDERED BUT NOT DIVERTED DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN SATISFACTION OF TREATY DIVERTED BY OTHERS DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY UNIT "B" I. & D. DISTRICT ORDERED BUT NOT DIVERTED DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN SATISFACTION OF TREATY DIVERTED BY OTHERS DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY CITY OF YUMA ORDERED BUT NOT DIVERTED DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN SATISFACTION OF TREATY DIVERTED BY OTHERS DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY

V (C)

RELEASE OF MAINSTREAM MATER PURSUANT TO ORDERS BUT NOT DIVERTED BY PARTY ORDERING SAME AND QUANTITY OF SUCH MATER DELIVERED TO MEXICO IN SATISFACTION OF MEXICAN TREATY OR DIVERTED BY OTHERS CALENDAR YEAR 1986 STATE OF ARIZONA

				STATE U	F ARIZUNI	ı		(ACRE-FEET) SHEET 3 OF 3								
WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	001	NOV	DEC	TOTALS		
YUMA COUNTY WATER USERS ASSN. DIVERSION AT IMPERIAL DAM	ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN	3454	2100	1703	1221	2495	2067	2756	1958	967	3035	2942	3368	28066		
DIVERSION AT THE CRIME DAN	SATISFACTION OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	c		
	DIVERTED BY OTHERS	1628	1343	446	334	1247	1697	1942	1645	882	1634	2039	2393	17230		
	DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN	1826	757	1257	887	1248	370	814	313	85	1025	447	975	10005		
	EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0		
COCOPAH INDIAN RESERVATION DIVERSION AT IMPERIAL DAM	ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN	9	6	1	5	2	6	16	11	1	22	34	25	138		
	SATISFACTION OF TREATY	۸	۸	٥	٥	٨	٥	٥	٥	٥	٥	٥	0	0		
	DIVERTED BY OTHERS	4	4	ŏ	ĭ	ĭ	5	11	ğ	ĭ	4	24	18	92		
	DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN	5	2	1	4	i	1	5	2	Ó	12	5	7	45		
	EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0		
ARIZONA TOTALS	ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN	12414	11202	19378	20581	14508	12739	18625	14793	24405	17981	16523	18121	201270		
	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	8219	7154	16558	17701	9720	8363	13927	10231	20546	9997	7937	14193	144546		
	EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0		

^{1/} NO ORDER RECEIVED. 2/ AVAILABLE FOR FUTURE USE.

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

V (C)

AND
QUANTITY OF SUCH MATER DELIVERED TO MEXICO IN SATISFACTION OF MEXICAN TREATY OR DIVERTED BY OTHERS

CALENDAR YEAR 1986 STATE OF CALIFORNIA

(ACRE-FEET) SHEET 1 OF 2 MAR APR MAY JUN **HATER USER** JAN FEB JUL AUG SEP OCT NOV DEC TOTALS METROPOLITAN WATER DISTRICT ORDERED BUT NOT DIVERTED DIVERSION AT LAKE HAVASU DELIVERED TO MEXICO IN SATISFACTION OF TREATY DIVERTED BY OTHERS DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN **EXCESS OF TREATY** PALO VERDE IRRIGATION DISTRICT ORDERED BUT NOT DIVERTED DIVERSION AT PALO VERDE DAM DELIVERED TO MEXICO IN SATISFACTION OF TREATY DIVERTED BY OTHERS DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY YUMA PROJECT RESV. DIVISION ORDERED BUT NOT DIVERTED BARD UNIT DELIVERED TO MEXICO IN DIVERSION AT IMPERIAL DAM SATISFACTION OF TREATY DIVERTED BY OTHERS DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN **EXCESS OF TREATY** YUMA PROJECT RESV. DIVISION ORDERED BUT NOT DIVERTED INDIAN UNIT DELIVERED TO MEXICO IN DIVERSION AT IMPERIAL DAM SATISFACTION OF TREATY DIVERTED BY OTHERS DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN **EXCESS OF TREATY** IMPERIAL IRRIGATION DISTRICT ORDERED BUT NOT DIVERTED DIVERSION AT IMPERIAL DAM DELIVERED TO MEXICO IN SATISFACTION OF TREATY DIVERTED BY OTHERS DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN **EXCESS OF TREATY**

V (C)

RELEASE OF MAINSTREAM MATER PURSUANT TO ORDERS
BUT NOT DIVERTED BY PARTY ORDERING SAME
AND
QUANTITY OF SUCH MATER DELIVERED TO MEXICO IN SATISFACTION OF MEXICAN TREATY OR DIVERTED BY OTHERS
CALENDAR YEAR 1986
STATE OF CALIFORNIA

			(ACRE-FEET) SHEET 2 0											OF 2			
WATER USER		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	001	NOV	DEC	TOTALS			
COACHELLA VALLEY WATER DIST. DIVERSION AT IMPERIAL DAM	ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN	573	2134	1593	847	569	137	337	399	307	1557	841	1065	10359			
DELT. Dett. Dive	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	623	5496			
	DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN	224	1047	1093	302	91	0	135	399	11	224	246	442	4214			
	EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0			
CALIFORNIA TOTALS	ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN	17954	35017	21230	18067	13993	9920	16142	14718	9884	25857	12074	10875	205731			
	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	15410	31365	16277	15528	9858	7272	14406	11638	7285	5755	5996	7525	148315			
	EXCESS OF TREATY	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

V (D)

MATER PASSING TO MEXICO IN EXCESS OF TREATY REQUIREMENTS CALENDAR YEAR 1986

HATER 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 1007,788 736348 841034 544198 969946 929757 746046 668751 706419 713903 614465 745126 9223781 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 MATER FROM MAINSTREAM OF GILA AND SAN FRANCISCO RIVERS AND CONSUMPTIVE USE OF SUCH MATER FOR BENIFIT OF THE GILA NATIONAL FOREST CALENDAR YEAR 1986

V (E)

		(ACRE-FEET)													
WATER USER			FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS	

GIŁA RIVER	DIVERSION CONSUMPTIVE USE													0	
SAN FRANCISCO RIVER	DIVERSION Consumptive USE													0	