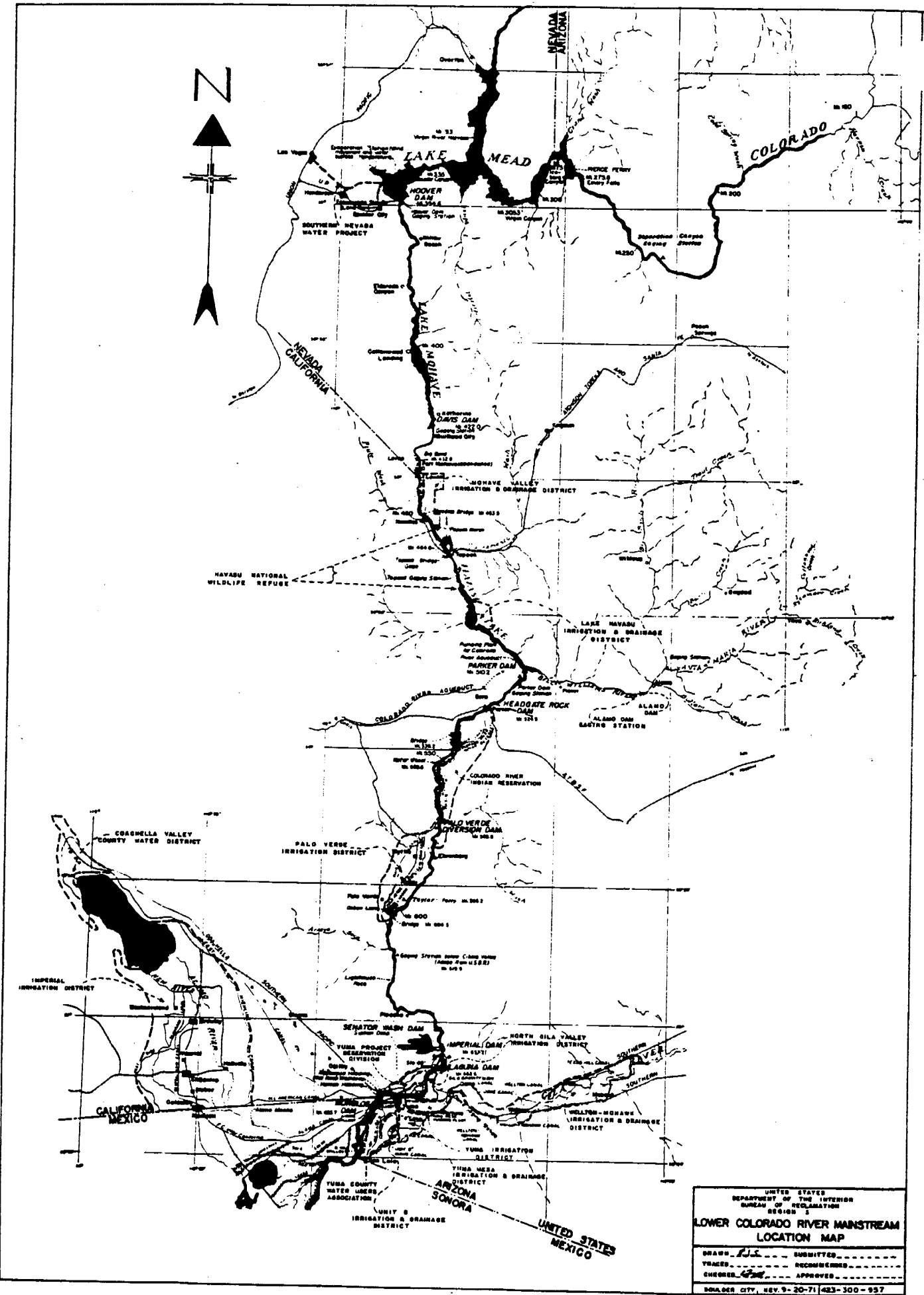


COMPILATION OF RECORDS IN
ACCORDANCE WITH ARTICLE V OF THE
DECREE OF THE SUPREME COURT OF
THE UNITED STATES IN
ARIZONA v. CALIFORNIA DATED MARCH 9, 1964

CALENDAR YEAR 1991

Bureau of Reclamation

Lower Colorado Region
Boulder City, Nevada



UNITED STATES
 DEPARTMENT OF THE INTERIOR
 BUREAU OF RECLAMATION
 REGION 5
**LOWER COLORADO RIVER MAINSTREAM
 LOCATION MAP**
 DRAWN *L.J.S.* SUBMITTED _____
 TRACED _____ RECOMMENDED _____
 CHECKED *L.P.M.* APPROVED _____
 DENVER CITY, SEP. 9-20-71 423-300-937

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S U M M A R Y
 WATER SUPPLY, CONSUMPTIVE USE, DELIVERY TO MEXICO, & RESERVOIR STORAGE
 CALENDAR YEAR 1991

FINAL RECORDS (THOUSAND ACRE-FEET)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
WATER USE SUMMARY													
ARIZONA	17.9	91.2	101.6	179.1	222.7	251.6	295.7	266.3	172.7	133.4	91.8	40.3	1864.4
CALIFORNIA	241.0	324.6	335.6	525.4	566.1	535.2	569.5	515.5	423.1	432.5	324.3	212.7	5005.6
NEVADA	9.0	8.4	10.2	14.5	18.2	19.4	22.4	20.7	16.6	17.9	12.3	10.6	180.2
STATES TOTAL	267.9	424.2	447.4	719.0	807.0	806.2	887.6	802.5	612.5	583.9	428.5	263.6	7050.2
MEXICO IN SATISFACTION OF TREATY	125.4	113.7	171.3	189.4	119.5	146.6	169.1	141.6	92.2	74.1	78.9	99.0	1520.9
MEXICO BYPASS PURSUANT TO MINUTE 242	13.3	11.1	13.6	12.5	10.5	9.2	12.5	11.7	11.6	12.0	11.0	11.8	140.7
USE TOTAL	406.6	549.0	632.3	920.9	937.0	962.0	1069.2	955.7	716.3	670.0	518.4	374.3	8711.7
END OF MONTH ACTIVE CONTENTS:													
LAKE POWELL													
LAKE MEAD	15438	15241	15097	14587	15624	15885	15488	14990	14699	14546	14474	14252	
LAKE MOHAVE	20061	20149	20050	19852	19607	19446	19269	19221	19233	19070	19081	19288	
LAKE HAVASU	1693	1703	1760	1618	1640	1591	1513	1484	1571	1597	1631	1782	
LOWER BASIN TOTAL STORAGE	554	554	612	592	605	602	586	579	556	548	557	550	
TOTAL STORAGE	22308	22406	22422	22062	21852	21639	21368	21284	21360	21215	21269	21620	
USE BELOW PARKER DAM:													
ARIZONA	10.1	73.8	60.7	126.5	161.4	165.3	176.0	156.1	120.1	107.9	66.5	28.9	1253.1
CALIFORNIA	133.7	226.4	232.5	428.2	454.0	427.7	456.4	405.9	316.1	323.1	221.7	104.3	3729.9
MEXICO	138.7	124.8	184.9	201.9	130.0	155.8	181.6	153.3	103.8	86.1	89.9	110.7	1661.6
TOTAL USE	282.4	425.0	478.1	756.6	745.3	748.8	813.9	715.3	539.9	517.1	378.1	244.0	6644.6

ARTICLE V OF THE DECREE OF THE SUPREME COURT

OF THE UNITED STATES

IN ARIZONA v. CALIFORNIA DATED MARCH 9, 1964

Article V

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

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

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

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

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

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

RECORDS OF RELEASES OF WATER THROUGH
REGULATORY STRUCTURES IN ACCORDANCE WITH

ARTICLE V(A) OF THE DECREE OF

THE SUPREME COURT OF THE UNITED STATES

IN ARIZONA V. CALIFORNIA DATED MARCH 9, 1964

CALENDAR YEAR 1991

The following tabulations for calendar year 1991 show final records of releases of water through regulatory structures controlled by the United States. At Hoover, Davis, Parker, Palo Verde, Imperial, and Laguna Dams, the records are furnished by the U.S. Geological Survey based on measurements at or below the structures.

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

RELEASES OF WATER THROUGH REGULATORY STRUCTURES
 CONTROLLED BY THE UNITED STATES
 CALENDAR YEAR 1991

STRUCTURE	(THOUSAND ACRE- FEET)												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
GLEN CANYON DAM	676.4	590.0	590.4	555.4	769.0	799.1	928.6	888.6	790.3	539.6	576.4	680.6	8384.4
HOOVER DAM	494.4	542.9	772.1	784.0	990.0	967.9	1011.0	922.3	781.8	673.8	534.0	478.3	8952.5
DAVIS DAM	379.2	514.5	683.6	889.6	926.5	973.9	1069.0	933.0	673.4	625.8	484.4	307.2	8460.1
PARKER DAM	271.0	394.9	479.8	794.0	757.7	794.8	853.9	720.7	541.3	518.6	363.1	218.5	6708.3
HEADGATE ROCK DAM 1/	259.8	351.9	441.1	733.4	684.7	710.9	756.8	636.1	494.7	481.6	335.9	188.0	6074.8
PALO VERDE DAM	232.2	335.5	420.5	615.4	572.4	598.5	651.6	517.6	410.0	447.8	300.9	144.3	5246.7
IMPERIAL DAM	20.2	12.9	34.9	22.3	20.3	21.7	22.6	22.8	25.5	19.0	15.1	41.0	278.4
DIVERSION TO MITTRY LAKE FROM GILA MAIN CANAL	0.9	0.7	0.9	0.8	0.9	0.9	0.9	1.0	1.0	0.9	0.8	0.9	10.4
SUM IMPERIAL DAM + DIVERSION TO MITTRY LAKE	21.1	13.6	35.8	23.2	21.1	22.6	23.5	23.8	26.5	19.9	15.8	41.9	288.8
LAGUNA DAM	22.8	16.5	38.6	27.6	26.3	25.2	23.8	26.3	31.6	22.4	21.6	30.1	312.8

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

RECORDS OF DIVERSIONS, RETURN FLOWS, AND CONSUMPTIVE USE
IN ACCORDANCE WITH ARTICLE V(B) OF THE DECREE OF
THE SUPREME COURT OF THE UNITED STATES IN

ARIZONA v. CALIFORNIA

DATED MARCH 9, 1964

CALENDAR YEAR 1991

The following tabulations for calendar year 1991 show final records of diversions of water from the mainstream of the Colorado River, return flow of such water to the mainstream and consumptive use of such water. The records were furnished by the U.S. Geological Survey, International Boundary and Water Commission, Bureau of Indian Affairs, Bureau of Reclamation (Reclamation), National Park Service, U.S. Fish and Wildlife Service, and water user agencies. Diversions from the All-American Canal and Gila Gravity Main Canal at Imperial Dam were assigned to each user by adding each user's proportional share of the total canal losses to the delivery taken by each user at its turnout from the canal.

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

There are undetermined amounts of unmeasured return flow reaching the Colorado River by means of flow through aquifers connecting water use areas to the mainstream. Reclamation, working with the U.S. Geological Survey, is continuing the research and investigative program to determine the amounts of such unmeasured return flows.

Tabulations for calendar year 1991 do include acceptable determinations of the unmeasured Colorado River return flows to Lake Mead from Las Vegas Wash which accrue the State of Nevada and a portion of the unmeasured return flows from the Yuma Mesa which are credited to the State of Arizona.

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1991
STATE OF ARIZONA

WATER USER	FINAL RECORDS												DEC TOTAL 1/
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
LAKE MEAD NAT'L RECREATION, AZ. DIVERSIONS FROM LAKE MOHAVE (DAVIS & KATHERINE LANDING)	51	65	76	21	25	26	35	29	24	21	13	10	395
L.C.R.D. PROJECT (DAVIS DAM) DIVERSION AT DAVIS DAM	10	10	12	12	11	12	14	14	13	13	8	6	135
BULLHEAD CITY PUMPED FROM WELLS	407	384	332	425	489	564	617	674	529	611	448	349	5829
DIV. AT DAVIS DAM, MOHAVE CO. PARKS	1	4	3	9	15	14	10	12	10	13	7	4	102
MOHAVE WATER CONSERVATION PUMPED FROM WELLS	408	388	335	434	504	578	627	686	539	624	455	353	5931
MOHAVE VALLEY I. & D. DISTRICT PUMPED FROM WELLS	24	29	24	31	36	43	49	44	44	45	32	27	428
FORT MOHAVE INDIAN RESERVATION 9 PUMPS AND WELLS IN FLOOD PLAIN	1032	1586	2057	3546	4036	4894	5756	5672	3908	2495	2083	1485	38550
GOLDEN SHORES WATER CONSERVATION DIST PUMPED FROM WELLS	3403	3730	3469	654	6610	7461	8115	6937	6283	5694	3927	3272	59556
HAVASU NATIONAL WILDLIFE REFUGE INLET-NW NE NW SEC 33 T9N R55W G&SRM WELL 8W/23E-15Ab (TOPOCK MARSH)	22	24	22	4	42	47	52	44	40	36	25	21	378
LAKE HAVASU IRRIGATION AND DRAINAGE DISTRICT PUMPED FROM WELLS	545	1740	3290	5730	4830	5890	7070	4860	2610	1450	833	631	39479
CENTRAL ARIZONA PROJECT PUMPED FROM LAKE HAVASU	13	14	13	3	26	29	31	27	24	22	15	13	230
CONSOLIDATED WATER UTILITIES PUMPED FROM RIVER	0	0	0	0	0	0	0	0	0	0	0	0	0
	558	1754	3303	5733	4856	5919	7101	4887	2634	1472	848	644	39479
	672	696	706	861	1105	1221	1446	1350	1204	1158	831	711	11961
	1633	9157	30824	41270	44077	66058	96480	90494	37946	13929	17106	4857	453831
	23	22	23	25	33	34	41	40	32	30	24	20	347

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1991
STATE OF ARIZONA

WATER USER		(ACRE- FEET)												
		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
TOWN OF PARKER PUMPED FROM RIVER 1 WELL- NW NW SEC 7 T9N R19W G&SRM		0	0	0	0	0	16	23	2	3	0	0	0	44
		52	57	53	10	101	101	104	104	93	87	60	50	872
CONSUMPTIVE USE		0	0	0	0	0	3	3	0	0	0	0	0	6
		52	57	53	10	101	114	124	106	96	87	60	50	910
COLORADO RIVER INDIAN RESERVATION DIVERSION AT HEADGATE ROCK DAM 1 PUMP FROM RIVER (B-04-22)14 bbd		11250	43040	38480	60590	73050	83870	97140	84570	46600	36980	27210	30540	633520
		343	376	349	66	666	752	818	699	633	574	396	330	6000
CONSUMPTIVE USE		14382	17675	21182	20447	22043	21922	24824	28007	22769	19655	18520	17392	248818
		-2789	25741	17847	40209	51673	62700	73134	57262	24464	17899	9086	13478	390702
EHRENBURG IMPROVEMENT ASSN. 1 PUMP SW SEC 3 T3N R22W G&SRM		18	18	21	20	27	34	34	35	31	27	19	21	305
CONSUMPTIVE USE														
CIBOLA VALLEY IRRIGATION DISTRICT 3 PUMPS SEC'S 20, 21 & 26T1N R23W		1085	1189	1106	209	2107	2379	2587	2212	2003	1815	1252	1043	18988
CONSUMPTIVE USE														
CIBOLA NATIONAL WILDLIFE REFUGE 4 PUMPS		1641	1162	519	682	2923	1350	1369	986	2012	1767	1859	1482	17751
CONSUMPTIVE USE														
IMPERIAL NATIONAL WILDLIFE REFUGE 2 WELLS SEC 13 T5S R22W G&SRM		380	417	388	73	739	834	907	775	702	636	439	366	6656
CONSUMPTIVE USE														
YUMA PROVING GROUND DIVERSION AT IMPERIAL DAM		1	0	3	1	0	0	3	0	0	3	0	1	12
CONSUMPTIVE USE														
STURGES DIVERSION AT IMPERIAL DAM (WARREN ACT)		381	444	214	202	349	311	421	417	376	397	344	227	4083
CONSUMPTIVE USE														
WELLTON MOHAWK I. & D. DISTRICT DIVERSION AT IMPERIAL DAM		14547	30687	24945	42413	49511	52811	54188	51393	49030	33157	31561	13066	447309
		13948	11633	14521	13491	11196	9792	13059	12068	12008	12091	11462	12001	147270
CONSUMPTIVE USE		599	19054	10424	28922	38315	43019	41129	39325	37022	21066	20099	1065	300039
CITY OF YUMA DIVERSION AT IMPERIAL DAM (AAC)		1486	1608	1303	1611	1908	2072	2289	2242	1963	1870	1660	1431	21443
		62	69	66	65	73	79	92	92	81	69	34	28	810
CONSUMPTIVE USE		999	1130	858	867	829	785	813	835	885	903	839	870	10613
		549	547	511	809	1152	1366	1568	1499	1159	1036	855	589	11640
MARINE CORPS AIR STATION (YUMA) DIVERSION AT IMPERIAL DAM		80	108	78	149	199	212	176	150	130	117	138	81	1618
CONSUMPTIVE USE														
SOUTHERN PACIFIC COMPANY DIVERSION AT IMPERIAL DAM		4	4	4	4	4	4	4	4	4	4	4	4	48
CONSUMPTIVE USE														

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1991
STATE OF ARIZONA

WATER USER	(ACRE-FEET)												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
COUNTY OF YUMA DIVERSION AT IMPERIAL DAM (YUMA INT. AIRPORT)	1	1	1	1	1	1	1	1	1	1	0	0	10
YUMA MESA FRUIT GROWERS ASSN. DIVERSION AT IMPERIAL DAM	1	1	1	1	1	1	1	1	1	1	1	1	12
UNIVERSITY OF ARIZONA DIVERSION AT IMPERIAL DAM (WARREN ACT)	81	63	51	74	94	102	119	104	93	79	34	39	933
YUMA UNION HIGH SCHOOL DIVERSION AT IMPERIAL DAM	4	4	8	14	25	31	36	29	22	19	12	3	207
CAMILLE, ALEC. JR. DIVERSION AT IMPERIAL DAM (WARREN ACT)	0	0	0	0	8	2	2	1	4	3	2	4	26
DESERT LAWN MEMORIAL DIVERSION AT IMPERIAL DAM	1	1	9	9	15	19	21	21	7	13	2	1	119
NORTH GILA VALLEY IRRIGATION DISTRICT DIVERSION AT IMPERIAL DAM 7/	2473	3141	3168	5504	6805	4952	4110	3287	3874	6054	4179	2026	49573
YUMA IRRIGATION DISTRICT DIVERSION AT IMPERIAL DAM 7/ PUMPED FROM PRIVATE WELLS	1632	1699	1677	2662	3151	2500	2222	1733	2151	3455	2760	1630	27272
YUMA MESA I. & D. DISTRICT DIVERSION AT IMPERIAL DAM 7/ PUMPED FROM PRIVATE WELLS	841	1442	1491	2842	3654	2452	1888	1554	1723	2599	1419	396	22301
UNIT "B" I. & D. DISTRICT DIVERSION AT IMPERIAL DAM 7/7E/	2406	3663	4120	6008	7086	4550	5439	5318	6624	7441	4605	2543	59803
YUMA COUNTY WATER USERS ASSOCIATION DIVERSION AT IMPERIAL DAM PUMPED FROM WELLS 7E/	829	732	327	778	422	801	674	600	1057	955	783	434	8392
COCOPAH INDIAN RESERVATION DIVERSION AT IMPERIAL DAM PUMPED FROM WELLS 7E/	820	932	696	1241	1120	1102	1072	1011	1049	1323	1079	600	12045
	2415	3463	3751	5545	6388	4249	5041	4907	6632	7073	4309	2377	56150
	7510	10661	12500	21328	26930	27192	30456	27271	22244	19728	12459	5963	224242
	2961	3613	2045	3335	3815	3897	4939	4745	3827	3949	3556	2612	43294
	4549	7048	10455	17993	23115	23295	25517	22526	18417	15779	8903	3351	180948
	1293	1853	1649	2945	3160	3345	3942	3815	2721	3021	1611	1625	30980
	523	638	361	589	673	688	872	837	675	697	627	461	7641
	770	1215	1288	2356	2487	2657	3070	2978	2046	2324	984	1164	23339
	12286	20065	22561	35819	36713	25705	25776	28923	30948	48010	29450	13779	330035
	686	640	722	693	694	566	499	625	446	643	601	602	7417
	9808	7653	8840	8341	9508	7844	8243	8196	8740	12752	11950	10504	112379
	3164	13052	14443	28171	27899	18427	18032	21352	22654	35901	18101	3877	225073
	20	57	109	184	124	77	73	101	188	129	117	57	1236
	1	2	3	4	2	2	1	2	3	2	2	2	26
	1	1	2	2	2	1	1	2	5	4	4	2	27
	20	58	110	186	124	78	73	101	186	127	115	57	1235

DIVERIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1991
STATE OF ARIZONA

WATER USER	(ACRE- FEET)												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC TOTAL 1/	
PUMPED FROM SOUTH GILA WELLS (DPOC'S) RETURNS 5/ OTHER USERS PUMPING FROM COLORADO RIVER AND WELLS IN FLOOD PLAIN DAVIS DAM TO INTERNATIONAL BOUNDARY	5659	4833	4807	4929	5254	3002	5228	4810	3962	4941	4477	3241	55143
ARIZONA TOTALS	1868	3512	2761	2917	5256	4687	5929	4555	4233	4064	2930	2464	45176
DIVERSION 6/ RETURNS CONSUMPTIVE USE	68426	141036	156570	234965	280328	303150	356950	328532	228794	193183	167115	89618	2528868
RETURNS	50733	49807	54989	55904	57591	51536	61276	62244	56071	59770	55274	49313	664508
CONSUMPTIVE USE	17893	91229	101581	179061	222737	251614	295674	266288	172723	133413	91841	40305	1864360

FINAL RECORDS

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

- 1/ No surface returns unless shown.
- 2/ Reported annual total only, distributed monthly according to nearby users.
- 3/ Calculated by assuming an annual diversion of 6 ac-ft per irrigated acre.
- 4/ Calculated using monthly power records.
- 5/ Pumped from underground and unassigned to district as returns; includes quantities of drainage from Yuma Mesa, Unit B, as well as from South Gila Valley.
- 6/ Details on Arizona Supplemental Sheets.
- 7/ Summation for the Yuma Mesa Division, consisting of the North Gila Valley Irrigation District, the Yuma Irrigation District, and the Yuma Mesa Irrigation & Drainage District is as follows:

Item	Annual Totals (Acre-Feet)
Diversions at Imperial Dam A/	333618
Pumped from wells	8392
Surface returns from South Gila Valley (S-Gila Canal Wasteway)	3673 *
Return flow North Gila Valley (6 drains & wasteways)	8434
Return flow South Gila Valley wells (DPOC's)	55143
Return flow Yuma Mesa Outlet Drain B/	16791 *
Return flow protective and regulatory pumping unit C/	26503 *
Estimated unmeasured groundwater return flow D/	27210
Subtotal return flow E/	137754
Consumptive Use (see note above)	137754
	204255

- (A) Total for the North Gila Valley, The Yuma Irrigation and Drainage Districts, and 'Unit B'.
- (B) Estimated at 85 percent of the Yuma Mesa Outlet Drain with balance credited to 'Unit B'.
- (C) Estimated at 85 percent of Protective and Regulatory Pumping Unit with balance credited to 'Unit B'.
- (D) Estimated at 38 percent of the North Gila Valley Diversion at Imperial Dam plus 14 percent of Yuma Irrigation District diversion at Imperial Dam.
- (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 YCWUA area, and by some of the surface drains in the YCWUA area. Efforts will be made to at least quantify these return flows within broad limits by respective water user entities in future years.

PUMPAGE FROM COLORADO RIVER
AND WELLS IN FLOOD PLAIN
DAVIS DAM TO INTERNATIONAL BOUNDARY
CALENDAR YEAR 1991
STATE OF ARIZONA

FINAL RECORDS

(ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Rayner, Jack Jr.	138.9	1002.8	351.5	191.7	88.5	27.0	1157.7	648.9	685.7	158.5	194.2	690.7	5336.1
Kayner, Jack Jr.	16.9	35.0	18.2	27.4	6.6	22.3	106.3	50.1	15.3	2.3	0.0	12.3	313.2
Ehrenberg Water	17.4	19.0	17.7	3.3	33.7	38.1	41.4	35.4	32.1	29.1	20.0	16.7	304.0
Arakelian, George	2.4	86.1	0.0	85.7	159.4	172.9	153.6	126.9	205.5	118.5	30.9	0.0	1141.9
Arakelian, George	97.7	107.1	99.6	18.8	189.8	214.2	233.0	199.2	180.4	163.5	112.7	94.0	1710.0
Pratt, L.	24.0	26.3	24.5	4.6	46.6	52.6	57.2	48.9	44.3	40.2	27.7	23.1	420.0
Dulin, A.	17.4	162.1	75.8	156.5	141.6	121.5	182.3	65.7	165.4	153.2	108.1	25.4	1375.0
Auza, Pete	0.0	0.0	0.0	0.0	0.0	14.7	96.3	117.2	0.0	0.0	0.0	0.0	228.2
Auza, Pete	118.1	214.4	243.1	402.5	433.0	188.5	272.2	282.3	213.9	157.3	306.0	86.3	2917.6
Yowelman, R.	41.1	45.1	41.9	7.9	79.9	90.2	98.1	83.9	76.0	68.8	47.5	39.6	720.0
Camron Bros.	0.6	0.2	2.2	31.6	108.4	63.6	16.9	11.5	0.0	0.0	0.0	0.0	235.0
Ott, Judd T.	37.4	25.3	28.1	70.4	104.2	109.5	70.2	68.9	0.0	0.0	0.0	0.0	514.0
Ott, Judd T.	80.2	65.2	55.4	54.2	48.4	62.4	69.0	81.1	0.0	0.0	0.0	0.0	515.9
Cameron Bros	0.0	0.0	24.2	66.0	115.8	137.5	89.2	4.5	0.0	0.0	0.0	0.0	437.2
Ott	124.5	170.6	123.4	163.6	163.2	155.6	155.6	203.3	0.0	0.0	0.0	0.0	1259.8
Peach	8.9	20.9	3.2	26.7	53.1	56.1	54.2	32.5	82.5	19.7	30.8	35.9	424.5
AZ Prod	0.0	0.0	3.6	3.4	7.0	7.3	9.9	10.0	0.0	0.0	0.0	0.0	41.2
Yucca Par Plant	14.1	15.4	14.3	2.7	27.3	30.8	33.5	28.7	26.0	23.5	16.2	13.5	246.0
Slade, Dwane	6.8	9.0	3.7	0.0	22.3	9.8	20.2	12.8	16.3	29.8	14.8	5.9	151.4
Jennings, Curtis	12.4	5.1	22.0	18.0	19.1	0.0	1.9	2.2	124.9	94.5	21.9	23.2	345.2
Power, R.E. & P.	162.9	178.5	166.0	31.3	316.3	357.0	388.4	332.0	300.7	272.5	187.9	156.6	2850.0
Hall, Ansil	27.4	30.1	18.8	3.3	53.3	60.1	65.4	55.9	50.6	65.9	31.6	26.4	480.0
Burrell	17.1	18.8	17.5	3.3	33.3	37.6	40.9	34.9	31.6	28.7	19.8	16.5	300.0
Huerta Packing	20.9	27.8	18.0	47.1	71.2	72.8	84.3	0.0	52.9	127.5	74.2	41.1	637.8
Cocopah Bend RV	52.8	84.6	48.7	117.4	147.9	118.3	113.3	18.2	131.5	105.5	123.7	64.1	1126.0
Rnc 220 Trst	19.4	21.3	19.8	3.7	37.7	42.6	46.3	39.6	35.9	32.5	22.4	18.7	340.0
Pacific Coast Fm	39.5	50.4	28.3	53.5	114.0	5.8	74.7	64.2	39.3	20.2	89.4	50.8	630.1
Pacific Coast Fm	31.1	41.5	22.8	42.1	89.8	4.1	58.1	49.5	23.1	15.3	70.1	45.6	493.1
Consoul, Lee	70.5	9.8	70.5	28.3	132.6	83.8	79.6	120.5	133.8	282.1	135.6	64.5	1211.6
Waymon Farms	43.7	73.7	88.9	144.5	143.9	53.1	103.3	204.2	58.9	160.3	177.6	69.2	1321.3
W. Brand-D. Donnelly	41.1	45.1	41.9	7.9	79.9	90.2	98.1	83.9	76.0	68.8	47.5	39.6	720.0
J W Cuming	54.6	130.2	84.8	161.1	234.2	0.3	0.0	77.4	282.7	452.4	317.7	67.3	1862.7
P. Sibley	111.4	122.1	113.6	21.4	216.4	244.3	265.7	227.1	205.7	186.4	128.6	107.1	1950.0
J W Cuming	23.7	55.4	44.3	13.9	97.1	89.1	150.1	0.0	23.6	175.8	128.5	83.1	884.6
C & J Cummings	27.4	30.1	28.0	5.3	53.3	60.1	65.4	55.9	50.6	45.9	31.6	26.4	480.0
J. Barkley	27.4	30.1	28.0	5.3	53.3	60.1	65.4	55.9	50.6	45.9	31.6	26.4	480.0
Hughes, Earl	0.0	0.0	127.6	0.0	92.4	80.0	132.8	96.2	0.0	0.0	0.0	0.0	529.0
West Cocopah Res	0.1	0.0	0.0	359.7	438.1	508.3	2.1	182.3	261.6	151.4	54.1	0.0	1957.7
West Cocopah Res	25.1	28.3	15.8	33.1	89.4	83.9	102.1	65.2	58.6	75.7	15.3	52.9	645.4
West Cocopah Res	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.7	49.3	69.0
West Cocopah Res	0.0	0.3	0.1	48.7	136.7	162.1	141.9	114.8	83.5	106.6	46.1	64.1	904.9
West Cocopah Res	60.2	77.3	105.7	0.0	0.0	62.5	27.7	0.0	21.6	53.6	0.0	0.0	408.6
West Cocopah Res	17.6	75.6	68.8	56.7	136.6	236.3	180.7	127.7	95.4	137.0	45.1	45.1	1222.6
West Cocopah Res	41.7	78.3	107.7	91.2	141.1	106.7	174.3	64.7	59.9	92.4	59.2	50.6	1067.8
West Cocopah Res	174.4	245.6	239.7	244.1	426.9	433.5	452.5	331.3	218.9	310.2	96.3	193.0	3366.4
West Cocopah Res	0.0	21.4	80.4	31.3	17.6	57.0	61.3	9.1	8.9	7.3	1.8	10.2	306.3
*** Total Arizona Supplemental ***	1868	3512	2761	2917	5256	4687	5929	4555	4233	4064	2930	2464	45176

PUMPAGE FROM COLORADO RIVER
 AND WELLS IN FLOOD PLAIN
 DAVIS DAM TO INTERNATIONAL BOUNDARY
 CALENDAR YEAR 1991
 STATE OF ARIZONA

FINAL RECORDS (ACRE- FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC TOTAL 1/

- 1/ Calculated from monthly power records and power-discharge measurements where available, else from power-discharge rate.
- 2/ Calculated by assuming an annual diversion rate of 6 ac-ft per acre.
- 3/ Reported annual total only, distributed monthly according to nearby users.

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1991
STATE OF CALIFORNIA

FINAL RECORDS (ACRE-FEET)

WATER USER	(ACRE-FEET)												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC TOTAL 1/	
FORT MOHAVE INDIAN RESERVATION PUMPED FROM RIVER AND WELLS	1126	1234	1148	217	2187	2468	2685	2295	2079	1884	1299	1083	19704
CITY OF NEEDLES 4 WELLS NW SW SEC 29 T9N R23E SBM	162	165	180	288	385	422	428	373	276	268	182	137	3266
METROPOLITAN WATER DISTRICT DIVERSION FROM LAKE HAVASU	0	0	0	0	0	0	0	0	0	0	0	0	0
	162	165	180	288	385	422	428	373	276	268	182	137	3266
PARKER DAM AND GOVERNMENT CAMP DIVERSION AT PARKER DAM	106398	97079	102139	96969	109746	104761	110195	107163	104936	107462	101426	107446	1255720
COLORADO RIVER INDIAN RESERVATION 1 PUMP 2 PUMPS	312	275	315	282	279	245	267	267	258	261	300	307	3368
	106086	96804	101824	96687	109467	104516	109928	106896	104678	107201	101126	107139	1252352
CITY OF WINTERHAVEN 1 WELL SE NE SEC 27 T16S R22E SBM	11	9	10	12	21	29	31	30	24	20	10	15	222
PALO VERDE IRRIGATION DISTRICT DIVERSION FROM PALO VERDE DAM	52	57	53	10	101	113	123	106	96	87	60	50	906
	246	335	468	803	795	1136	1055	919	692	541	290	262	7542
PICACHO DEVELOPMENT CORPORATION PUMPED FROM RIVER	298	392	521	812	896	1250	1178	1025	787	628	349	312	8448
YUMA PROJECTS, RES. DIV. INDIAN UNIT DIVERSION AT IMPERIAL DAM	6	10	9	10	11	11	13	12	10	10	13	14	129
	29920	53070	43250	82250	92010	104900	109900	98760	78150	68490	45300	45920	851920
YUMA PROJECTS, RES. DIV. BARD UNIT DIVERSION AT IMPERIAL DAM	28830	29640	32979	34428	36509	37084	41952	43380	41233	40539	37249	35132	438955
	1090	23430	10271	47822	55501	67816	67948	55380	36917	27951	8051	10788	412965
RETURNS FROM YUMA PROJECT RESERVATION DIVISION RETURNS COMBINED BARD AND INDIAN UNITS USE IMPERIAL IRRIGATION DISTRICT DIVERSION AT IMPERIAL DAM	5	13	10	10	7	10	14	10	10	9	2	7	107
	2077	2931	2884	3212	5112	4308	3540	2748	4799	9200	6468	2334	49613
COACHELLA VALLEY WATER DISTRICT DIVERSION AT IMPERIAL DAM	73	57	49	31	69	44	41	33	101	218	171	78	965
	2004	2874	2835	3181	5043	4264	3499	2715	4698	8982	6297	2256	48648
RETURNS FROM YUMA PROJECT RESERVATION DIVISION RETURNS COMBINED BARD AND INDIAN UNITS USE IMPERIAL IRRIGATION DISTRICT DIVERSION AT IMPERIAL DAM	1562	2871	3725	6059	7241	6264	5600	4638	4368	5511	4136	1991	53966
	31	30	37	35	60	40	40	34	52	80	68	38	545
COACHELLA VALLEY WATER DISTRICT DIVERSION AT IMPERIAL DAM	1531	2841	3688	6024	7181	6224	5560	4604	4316	5431	4068	1953	53421
	3557	2601	3369	2669	3475	3679	3285	2538	3110	4233	4071	3620	40207
COACHELLA VALLEY WATER DISTRICT DIVERSION AT IMPERIAL DAM	-22	3114	3154	6536	8749	6809	5774	4781	5904	10180	6294	589	61862
	122147	179518	207602	345913	356591	319531	349244	313786	249550	267751	194396	79694	2985723
COACHELLA VALLEY WATER DISTRICT DIVERSION AT IMPERIAL DAM	7086	5736	6012	5958	8725	5902	7321	6572	8753	11165	9107	4423	86760
	115061	173782	201590	339955	347866	313629	341923	307214	240797	236586	185289	75271	2898963
COACHELLA VALLEY WATER DISTRICT DIVERSION AT IMPERIAL DAM	16909	24524	15790	31196	38958	35280	36686	35899	30062	26377	19529	16207	327417
	981	784	457	537	953	652	769	752	1054	1100	915	900	9854
COACHELLA VALLEY WATER DISTRICT DIVERSION AT IMPERIAL DAM	15928	23740	15333	30659	38005	34628	35917	35147	29008	25277	18614	15307	317563

DIVERSIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1991
STATE OF CALIFORNIA

WATER USER	(ACRE- FEET)												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC TOTAL 1/	
OTHER USERS PUMPING FROM COLORADO RIVER AND WELLS IN FLOOD PLAIN DAVIS DAM TO INTERNATIONAL BOUNDARY CALIFORNIA TOTALS	1290	1926	1575	2411	2957	3579	3625	2345	2660	2513	3070	2063	30014
DIVERSION 5/ RETURNS	281911	363742	378842	569359	616122	582813	623139	569084	477711	490122	376181	257223	5586249
CONSUMPTIVE USE	40870	39123	43218	43940	50070	47646	53675	53576	54561	57596	51881	44498	580654
	241041	324619	335624	525419	566052	535167	569464	515508	423150	432526	324300	212725	5005595

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

- 1/ No surface returns unless shown.
- 2/ Estimate based on measured regulatory reservoirs seepage returns less an estimated amount of phreatophyte use.
- 3/ 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.
- 4/ Calculated using monthly power records.
- 5/ Details on California Supplemental Sheets.
- 6/ Reported annual total only, distributed monthly according to nearby users.
- 7/ Calculated by assuming an annual diversion of 6 ac-ft per irrigated acre.

PUMPAGE FROM COLORADO RIVER
AND WELLS IN FLOOD PLAIN
DAVIS DAM TO INTERNATIONAL BOUNDARY
CALENDAR YEAR 1991
STATE OF CALIFORNIA

FINAL RECORDS (ACRE- FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC TOTAL 1/	
Kenedy (Russell Bros.)	33.9	37.2	34.6	6.5	65.9	74.4	80.9	69.2	62.7	56.8	39.2	32.6	594.0
Soto (Russell Bros.)	46.6	51.1	47.5	9.0	90.6	102.2	111.2	95.1	86.1	78.0	53.8	44.8	816.0
Lye, C. L.	1.7	1.9	1.7	0.3	3.3	3.8	4.1	3.5	3.2	2.9	2.0	1.6	30.0
Land, Ralph	45.2	70.0	29.1	104.9	106.4	103.5	230.3	0.0	87.4	102.0	511.5	325.0	1715.3
Living Earth Frm	13.7	21.7	31.8	41.9	39.0	27.5	19.5	21.7	39.8	20.2	44.8	0.0	315.9
Land, Ralph	25.2	92.4	36.4	223.9	137.2	319.1	156.7	148.4	81.2	44.8	50.4	0.0	1315.7
Power, Pete	113.8	124.8	116.0	21.9	221.1	249.5	271.4	232.0	210.1	190.4	131.3	109.5	1992.0
Harp, P. (R. Harp)	34.3	37.6	34.9	6.6	66.6	75.2	81.8	69.9	63.3	57.4	39.6	33.0	600.0
Spencer, Mindle	186.7	182.7	165.0	284.9	322.2	339.9	373.3	245.6	314.4	365.4	282.9	302.6	3365.6
H & S Farms	11.9	20.1	21.9	120.4	142.3	157.8	164.2	89.4	31.9	54.7	21.0	63.9	899.5
Ed Wavers Farms	13.7	15.0	14.0	2.6	26.6	30.1	32.7	28.0	25.3	22.9	15.8	13.2	240.0
Ed Wavers Farms	211.6	300.1	200.7	194.3	211.6	408.7	585.7	113.1	281.9	132.3	186.1	113.1	2939.2
Ed Wavers Farms	99.4	200.7	197.1	298.3	198.9	406.9	397.8	238.1	218.0	152.4	355.8	176.1	2939.5
Spencer, M.	50.8	81.1	71.9	89.3	131.1	57.1	29.0	99.2	64.5	340.8	492.2	36.9	1543.9
Martin (A. Dees)	23.3	37.9	17.5	32.1	20.4	32.1	58.3	29.1	23.3	20.4	131.2	17.5	443.1
Wavers, Edward M.	85.9	76.3	60.4	73.1	41.3	57.2	60.4	22.3	25.4	19.1	38.2	28.6	588.2
Schaffer, F. (Harp)	18.9	20.7	19.2	3.6	36.6	41.3	45.0	38.4	34.8	31.5	21.8	18.1	330.0
Easterday, Kitti	0.0	0.0	67.0	116.8	122.6	137.9	136.0	103.4	76.6	81.4	76.6	0.0	918.3
Dees, Alex	33.1	114.9	103.2	179.1	241.4	257.0	284.2	264.7	147.9	130.4	105.1	79.8	1940.8
Harp, P. (R. Harp)	54.9	60.1	55.9	10.5	106.5	120.3	130.8	111.8	101.3	91.8	63.3	52.7	960.0
Easterday, K.	6.7	102.8	42.1	144.9	347.2	274.7	202.2	198.9	55.6	59.0	156.7	1.7	1592.5
Smith, F. (P. Power)	78.8	86.1	90.5	148.9	59.8	62.8	70.1	40.9	62.8	335.7	214.6	309.4	1560.4
Valdez, Mike	46.7	127.0	74.4	160.6	112.4	121.2	48.2	32.1	504.3	118.2	51.1	289.0	1685.2
Valdez, Mike	51.1	61.3	39.4	135.7	100.7	113.9	45.2	45.2	54.0	0.0	0.0	0.0	646.5
Wetmore, Kenneth C. 2/3/4/	0.3	0.3	0.3	0.1	0.6	0.7	0.7	0.6	0.6	0.5	0.4	0.3	5.4
Wetmore, Mark M. 2/3/4/	0.5	0.6	0.5	0.1	1.0	1.2	1.3	1.1	1.0	0.9	0.6	0.5	9.3
Sherman, Margaret T. 2/3/4	1.4	1.5	1.4	0.3	2.7	3.0	3.3	2.8	2.5	2.3	1.6	1.3	24.0
Williams, Jerry /3	0.0	0.1	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	1.2
Lindeman, William H. & Hazel D. 3/	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Carney, Jerome D. 3/4/	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.5
Andrade, Dorothy L. 3/4/	0.1	0.1	0.1	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	1.8
*** Total California Supplemental ***	1290	1926	1575	2411	2957	3579	3625	2345	2660	2513	3070	2063	30014

1/ Calculated from monthly power records and power-discharge measurements where available, else from power-discharge rate.
2/ Calculated by assuming an annual diversion rate of 6 ac-ft per acre.
3/ Location of well/pump not reported.
4/ Reported annual total only, distributed monthly according to nearby users.

DIVERIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1991
STATE OF NEVADA

WATER USER	(ACRE-FEET)												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL 1/
FINAL RECORDS													
BOLDER CANYON PROJECT DIVERION AT HOOVER DAM	1	1	2	1	2	3	3	5	8	3	2	1	32
ROBERT B. GRIFFITH WATER PROJECT DIVERION AT SADDLE ISLAND, LAKE MEAD BY USER:	16514	14880	17918	23342	25860	24790	27823	25984	21910	26368	20462	17937	263788
BOULDER CITY 4/	269	304	307	482	644	792	876	784	682	571	364	290	6365
HENDERSON 4/	909	1165	1165	1878	2489	2911	3917	3752	2872	3088	2169	1794	28108
LAS VEGAS VALLEY W.D. 4/	13592	11570	14557	18509	19924	18717	20247	18919	16100	20161	15989	14238	202524
NORTH LAS VEGAS 4/	1616	1653	1702	2199	2505	2122	2534	2301	2018	2276	1767	1498	24190
NELLIS AIR FORCE BASE 4/	128	188	187	274	299	247	249	228	237	272	173	117	2600
LAKE MEAD NATIONAL RECREATION AREA DIVERION AT LAKE MEAD	72	43	39	48	61	65	79	80	70	70	41	51	719
BASIC MANAGEMENT INC. DIVERION AT SADDLE ISLAND, LAKE MEAD	624	431	433	217	315	498	552	576	549	580	525	522	5822
CITY OF HENDERSON DIVERION AT SADDLE ISLAND, LAKE MEAD (INCLUDES DELIVERY TO LAKE L.V.)	263	320	352	482	248	521	559	582	535	323	305	348	4838
NEVADA DEPARTMENT OF FISH & GAME DIVERION AT SADDLE ISLAND, LAKE MEAD	355	320	345	284	265	273	320	315	327	351	337	326	3818
RETURNS	355	320	345	284	264	272	320	315	327	351	337	326	3816
CONSUMPTIVE USE	0	0	0	0	1	1	0	0	0	0	0	0	2
CITY OF BOULDER CITY DIVERION AT HOOVER DAM	0	0	0	0	0	0	0	0	0	0	0	0	0
PACIFIC COAST BUILDING PRODUCTS INC. DIVERION AT GYPSUM WASH, LAKE MEAD	37	37	76	33	65	68	71	66	42	35	39	30	599
SOUTHERN CALIFORNIA EDISON PUMPED FROM SEC 24 T32S R66E MDB&M	1337	1215	1280	592	1258	1270	1799	1870	1126	890	1012	1172	14821
RETURNS	269	265	260	321	388	407	478	456	373	356	307	247	4127
CONSUMPTIVE USE	10142	8813	10194	10530	9963	8225	8918	8954	8019	10700	10348	9730	114536
BIG BEND WATER DISTRICT PUMPED FROM SEC 13 T32S R66E MDB&M	1	1	1	0	1	1	2	1	1	1	1	1	12
LAS VEGAS WASH RETURN FLOWS OTHER USERS PUMPING FROM COLORADO RIVER AND WELLS IN FLOOD PLAIN DAVIS DAM TO CALIFORNIA BOUNDARY													

DIVERIONS FROM MAINSTREAM-AVAILABLE RETURN FLOW
AND CONSUMPTIVE USE OF SUCH WATER
CALENDAR YEAR 1991
STATE OF NEVADA

WATER USER	(ACRE-FEET)												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC TOTAL 1/	
DIVERSION	19473	17513	20706	25320	28463	27896	31686	29935	24941	28977	23031	20635	298576
RETURNS	10497	9133	10539	10814	10227	8497	9238	9269	8346	11051	10685	10056	118352
CONSUMPTIVE USE	8976	8380	10167	14506	18236	19399	22448	20666	16595	17926	12346	10579	180224
NEVADA TOTALS													

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

- 1/ No surface returns unless shown.
- 2/ Estimated return based on historic use method adopted by the task force on unmeasured return flows on August 28, 1984 and as revised.
- 3/ Details on Nevada Supplemental Sheets.
- 4/ User deliveries adjusted by weighted use to equal total diversion at Lake Mead.

PUMPAGE FROM COLORADO RIVER
AND WELLS IN FLOOD PLAIN
DAVIS DAM TO INTERNATIONAL BOUNDARY
CALENDAR YEAR 1991
STATE OF NEVADA

FINAL RECORDS (ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
Clark County Parks & Rec. 2/	0.1	0.1	0.1	0.0	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	1.8
Boy Scouts of America SEC5 T33S R66E 2/	0.6	0.6	0.6	0.1	1.1	1.2	1.3	1.1	1.0	0.9	0.6	0.5	9.8
*** Total Nevada Supplemental ***	1	1	1	0	1	1	2	1	1	1	1	1	12

1/ Calculated from monthly power records and power-discharge measurements where available, else from power-discharge rate.
2/ Reported annual total only, distributed monthly according to nearby users.

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 1991

The following tabulations for calendar year 1991 show records of releases of mainstream water pursuant to orders thereto, but not diverted by the party ordering the same, and the quantity of such water delivered to Mexico in satisfaction of the Mexican Treaty or diverted by others in satisfaction of decreed rights. Also shown are quantities of such rejected water delivered to Mexico in excess of treaty requirements and quantities delivered to storage. The quantities delivered to storage were available to release for future use.

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

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

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

RELEASE OF MAINSTREAM WATER PURSUANT TO ORDERS
BUT NOT DIVERTED BY PARTY ORDERING SAME
AND
QUANTITY OF SUCH WATER DELIVERED TO MEXICO IN SATISFACTION OF MEXICAN TREATY OR DIVERTED BY OTHERS
CALENDAR YEAR 1991
STATE OF ARIZONA

FINAL RECORDS (ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
CENTRAL ARIZONA PROJECT DIVERSION AT LAKE HAVASU	0	764	2902	743	25	1790	2437	2653	4851	331	178	55	16729
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY													
DIVERTED BY OTHERS													
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	0	764	2902	743	25	1790	2437	2653	4851	331	178	55	16729
COLO. RIVER INDIAN RESERVATION DIVERSION AT HEADGATE ROCK	1333	389	781	2204	964	1626	1805	2876	2235	1192	2465	1974	19844
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY													
DIVERTED BY OTHERS	559	200	202	1414	436	758	424	783	827	496	819	508	7426
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	685	189	579	790	528	868	1381	2093	1398	696	1646	1442	12295
NORTH GILA VALLEY I.D. DIVERSION AT IMPERIAL DAM	89	0	0	0	0	0	0	0	10	0	0	24	123
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY													
DIVERTED BY OTHERS	4052	2521	3543	2646	2271	3453	3358	2840	2277	2739	2880	3225	35805
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	385	1012	1014	1791	855	714	452	833	589	591	1559	647	10442
STURGES (WARREN ACT) GILA PROJECT DISTRICTS DIVERSION AT IMPERIAL DAM 1/ DIVERSION AT IMPERIAL DAM 1/	2584	1509	2529	855	1416	2739	2906	2007	1587	2148	1321	2515	24116
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY													
DIVERTED BY OTHERS	1083	0	0	0	0	0	0	0	101	0	0	63	1247
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	0	0	0	0	0	0	0	0	0	0	0	0	0
WELLTON-MOHAWK I. & D. DISTRICT DIVERSION AT IMPERIAL DAM	6046	2529	5171	603	2348	9943	11857	6948	5887	4197	2081	4023	61633
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY													
DIVERTED BY OTHERS	307	180	95	97	252	1220	1466	470	514	238	343	113	5295
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	3736	2349	5076	506	2096	8723	10391	6478	4958	3959	1738	3775	53785
YUMA IRRIGATION DISTRICT DIVERSION AT IMPERIAL DAM	2003	0	0	0	0	0	0	0	415	0	0	135	2553
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY													
DIVERTED BY OTHERS	407	192	732	107	95	343	333	264	448	653	565	908	5047
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	54	34	42	85	44	101	34	38	117	103	202	115	969
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	204	158	690	22	51	242	299	226	303	550	363	767	3875
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	149	0	0	0	0	0	0	0	28	0	0	26	203

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 1991
STATE OF ARIZONA

WATER USER	FINAL RECORDS												TOTAL
	(ACRE-FEET)												
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
YUMA MESA I. & D. DISTRICT DIVERSION AT IMPERIAL DAM	3826	3308	6066	2364	2517	1777	1075	2638	3465	3427	3457	2569	36489
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	208	1131	309	1012	698	71	71	871	1119	724	785	331	7330
DIVERTED BY OTHERS	2563	2177	5757	1352	1819	1706	1004	1767	2154	2703	2672	2141	27815
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	1055	0	0	0	0	0	0	0	192	0	0	97	1344
UNIT "B" I. & D. DISTRICT DIVERSION AT IMPERIAL DAM	587	375	415	379	327	458	631	347	623	395	216	609	5362
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	48	117	103	149	63	16	61	40	180	22	6	97	902
DIVERTED BY OTHERS	357	258	312	230	264	442	570	307	439	373	210	496	4258
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	182	0	0	0	0	0	0	0	4	0	0	16	202
YUMA COUNTY WATER USERS ASSN. DIVERSION AT IMPERIAL DAM	4862	4800	5833	3055	2644	5395	3515	4790	2704	4606	7024	10443	59671
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	1599	3556	1898	2063	1226	1367	1680	1632	972	1809	3443	2938	24183
DIVERTED BY OTHERS	1783	1244	3935	992	1418	4028	1835	3158	1716	2797	3581	7273	33760
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	1480	0	0	0	0	0	0	0	16	0	0	232	1728
ARIZONA TOTALS	21113	14878	25443	12101	11191	24785	25011	23356	22490	17540	18866	23806	240580
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	3160	6230	3663	6611	3574	4247	4188	4667	4318	3983	7157	4749	56547
DIVERTED BY OTHERS	11912	8648	21780	5490	7617	20538	20823	18689	17406	13557	11709	18464	176633
DELIVERED TO STORAGE 2/ DELIVERED TO MEXICO IN EXCESS OF TREATY	6041	0	0	0	0	0	0	0	766	0	0	593	7400

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 1991
 STATE OF CALIFORNIA

WATER USER	(ACRE- FEET)												TOTAL
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
METROPOLITAN WATER DISTRICT DIVERSION AT LAKE HAVASU	533	161	251	388	485	329	284	318	260	251	940	546	4746
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	533	161	251	388	485	329	284	318	260	251	940	546	4746
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
PALO VERDE IRRIGATION DISTRICT DIVERSION AT PALO VERDE DAM	637	486	488	169	1210	5732	3431	3136	4278	1597	754	857	22775
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	637	486	488	169	1210	5732	3431	3136	4278	1597	754	857	22775
DIVERTED BY OTHERS	139	300	230	28	752	1700	1262	1414	2386	799	532	93	9635
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	318	186	258	141	458	4032	2169	1722	1799	798	222	736	12839
YUMA PROJECT RESV. DIVISION DIVERSION AT IMPERIAL DAM	180	0	0	0	0	0	0	0	93	0	0	28	301
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	180	0	0	0	0	0	0	0	93	0	0	28	301
DIVERTED BY OTHERS	3495	1432	2029	432	966	1236	1991	3043	1652	575	1989	4477	23317
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	859	879	532	381	532	194	609	1180	587	256	1222	938	8169
IMPERIAL IRRIGATION DISTRICT DIVERSION AT IMPERIAL DAM	1728	553	1497	51	434	1042	1382	1863	1043	319	767	3414	14093
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	908	0	0	0	0	0	0	0	22	0	0	125	1055
DIVERTED BY OTHERS	9660	4604	16945	1498	1898	1246	2154	6345	8063	1309	1966	14656	70344
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	1541	1188	1914	692	899	194	530	561	904	381	1150	1738	11692
COACHELLA VALLEY WATER DIST. DIVERSION AT IMPERIAL DAM	3952	3416	15031	806	999	1052	1624	5784	4846	928	816	12117	51371
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	4167	0	0	0	0	0	0	0	2313	0	0	801	7281
DIVERTED BY OTHERS	228	793	3066	292	56	93	139	186	1186	248	298	1563	8148
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	22	252	692	161	40	42	61	16	645	179	204	133	2447
CALIFORNIA TOTALS	115	541	2374	131	16	51	78	170	353	69	94	1303	5295
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	91	0	0	0	0	0	0	0	188	0	0	127	406
DIVERTED BY OTHERS	14553	7476	22779	2779	4615	8636	7999	13028	15439	3980	5947	22099	129330
DELIVERED TO STORAGE 1/ DELIVERED TO MEXICO IN EXCESS OF TREATY	2561	2619	3368	1262	2223	2130	2462	3171	4522	1615	3108	2902	31943
YUMA PROJECT RESV. DIVISION DIVERSION AT IMPERIAL DAM	6646	4857	19411	1517	2392	6506	5337	9857	8301	2365	2839	18116	88344
ORDERED BUT NOT DIVERTED DELIVERED TO MEXICO IN SATISFACTION OF TREATY	5346	0	0	0	0	0	0	0	2616	0	0	1081	9043

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 1991

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 1991

DELIVERIES TO MEXICO IN SATISFACTION OF PART III OF 1944 TREATY
 AND
 WATER PASSING TO MEXICO IN EXCESS OF TREATY REQUIREMENTS
 CALENDAR YEAR 1991

FINAL RECORDS

(ACRE-FEET)

WATER USER	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ACTUAL DELIVERY IN SATISFACTION OF TREATY	125407	113736	171314	189399	119462	146617	169148	141619	92187	74111	78915	98958	1520873
TO MEXICO AS SCHEDULED	111495	113499	170667	189152	119253	146509	169089	141168	89470	73775	78639	97284	1500000
TO MEXICO IN EXCESS OF SCHEDULE	13912	237	647	247	209	108	59	451	2717	336	276	1674	20873
BY-PASS PURSUANT TO MINUTE 242	13287	11058	13634	12536	10490	9177	12464	11657	11615	11990	11016	11760	140684

DIVERIONS FROM MAINSTREAM OF GILA AND SAN FRANCISCO RIVERS
AND
CONSUMPTIVE USE OF SUCH WATER FOR BENEFIT OF THE GILA NATIONAL FOREST
CALENDAR YEAR 1991

WATER USER	FINAL RECORDS (ACRE- FEET)											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC TOTAL 1/
GILA RIVER	0	0	0	0	0	0	0	0	0	0	0	0
DIVERSION CONSUMPTIVE USE	0	0	0	0	0	0	0	0	0	0	0	0
SAN FRANCISCO RIVER	0	0	0	0	0	0	0	0	0	0	0	0
DIVERSION CONSUMPTIVE USE	0	0	0	0	0	0	0	0	0	0	0	0

1/ Zero diversions reported in 1991.