UNITED STATES DEPARTMENT OF THE INTERIOR Cecil D. Andrus, Secretary

WATER AND POWER RESOURCES SERVICE R. Keith Higginson, Commissioner

LOWER COLORADO REGION
Eugene Hinds, 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

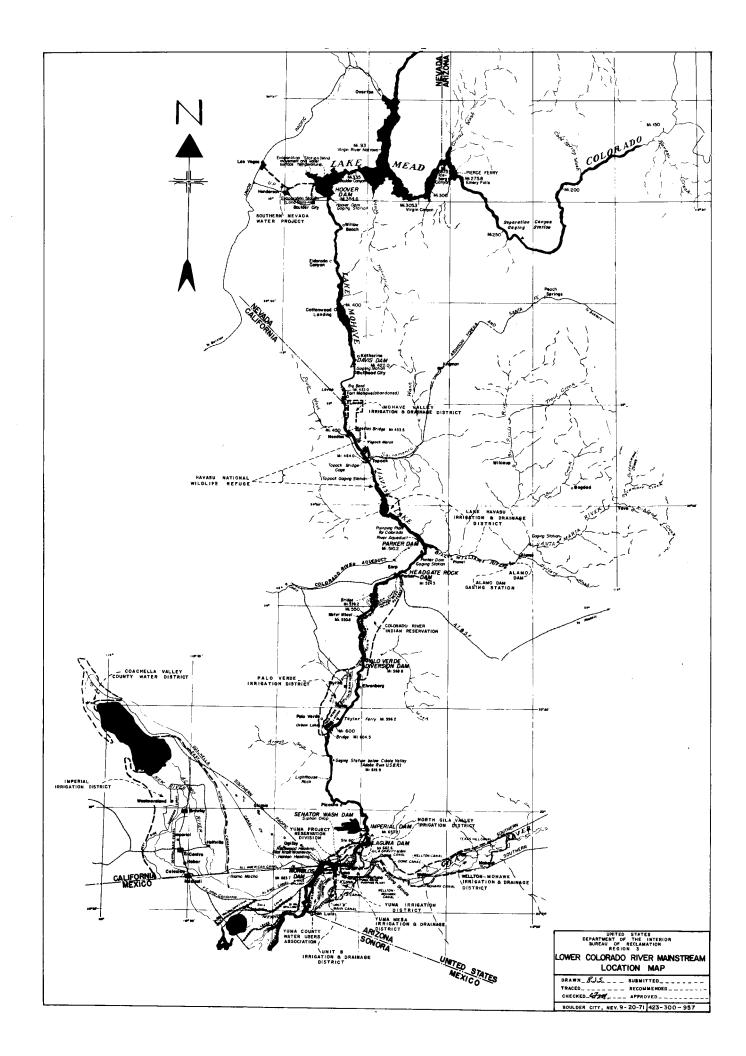
CALENDAR YEAR 1979

Division of Water and Land Operations Boulder City, Nevada

December 1, 1980

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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 1979

The following tabulations for calendar year 1979 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 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)

RELEASE OF WATER THROUGH REGULATORY STRUCTURES CONTROLLED BY THE UNITED STATES

CALENDAR YEAR 1979

(ACRE - FEET)

WATER USER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Hoover Dam	217,700	291,400	618,000	703,300	1,010,000	865,300	857,700	875,900	702,900	530,300	542,900	505,300	7,721,000
Davis Dam	178,100	380,300	623,100	875,400	916,400	918,400	1,041,000	922,700	796,800	573,400	420,000	394,800	8,040,000
Perker Dam	151,800	336,800	575,800	776,100	7 82,9 0 0	849,700	960,600	829,800	709,400	505,200	367,900	348,700	7,195,000
Headgate Rock Dam 1/	147,500	306,600	524,800	715,800	719,600	772,900	873,200	754,200	653,800	474,600	346,700	324,300	6,614,000
Palo Verde Dam 2/	135,100	247,500	411,000	546,300	572,500	617,700	709,100	630,700	544,400	425,700	305,600	277,100	5,423,000
Imperial Dam 3/	28,020	10,510	19,500	23,530	24,270	22,060	22,470	28,360	27,770	24,820	20,330	20,750	272,400
Laguna Dam	26,610	10,530	20,450	25,990	22,950	20,650	24,290	29,340	27,320	24,340	21,800	21,970	2 78, 200

^{1/} Colorado River below Parker Dam less diversions at Headgate Rock Dam. $\overline{2}/$ Measured through river gates at Palo Verde Dam. $\overline{3}/$ Includes diversion to Mittry Lake.

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

CALENDAR YEAR 1979

The following tabulations for calendar year 1979 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 Geological Survey, International Boundary and Water Commission, Bureau of Indian Affairs, Water and Power Resources Service, 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 underground, 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 1979 was made by two basic methods: (1) For most electric pumps, diversion was computed on a monthly basis from power records and a "kWh per acre-foot factor" that was determined by discharge measurement; (2) For pumps other than electric, a 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. A Task Force on Ground-Water Return Flows to the Lower Colorado River, consisting of State and Federal members, was organized during 1970 to provide advice and guidance to the Water and Power Resources Service and the Geological Survey which are jointly conducting a program to determine the location and amounts of such unmeasured return flows. When quantitities are determined, it is anticipated that such amounts will be credited to the affected users and States in making the consumptive use computations.

DIVERSIONS FROM MAINSTREAM — AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF ARIZONA

(ACRE - FEET) Sheet 1 of 4

WATER USER		JANUARY I	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Lake Mead National Recreation Area Diversion from Lake Mohave	Diversion Return Consumptive Use	7	8	9	19	27	34	34	33	25	17	15	10	238 <u>1</u> /
Davis Dam and Government Camp Diversion at Davis Dam	Diversion Return Consumptive Use	6	7	7	16	22	28	28	27	21	14	12	8	196 <u>1</u> /
Mohave Valley Irrigation and Drainage District pumped from wells and Inlet channel to Havasu National Wildlife Refuge	Diversion Return Consumptive Use	501.	913	1,267	3,356	2,840	2,982	3,033	2,972	1,561	1,134	827	1,375	22,761 <u>1</u> /
Fort Mohave Indian Reservation Pumped from 9 pumps and wells in the flood plain	Diversion Return Consumptive Use	522	73 8	1,101	2,426	1,573	1,812	1,816	2,248	1,855	973	730	422	16,216 <u>1</u> /
Havasu National Wildlife Refuge Inlet-Nwhnehnwh, Sec. 33 T. 9 N., R. 23 E., SEM	Diversion Return Consumptive Use	158 0 158	2,099 0 2,099	4,752 0 4,752	4,392 0 4,392	2,799 0 2,799	5,286 0 5,286	5,999 0 5,999	3,680 0 3,680	3,242 0 3,242	5,212 0 5,212	2,640 7,081 -4,441	1,561 0 1,561	41,820 7,081 34,739
Lake Havasu Irrigation and Drainage District pumped from wells	Diversion Return Consumptive Use	405	401	476	787	847	968	1,029	970	920	870	535	476	8,684 <u>1</u> /
Graham Water Utilities Inc. Pumped from wells	Diversion Return Consumptive Use	7	6	7	9	11	11	12	11	11	9	8	7	109 <u>1</u> /
Holiday Harbor Utilities Inc. Pumped from wells	Diversion Return Consumptive Use	1	1	1	1	5	2	2	2	2	5	1	ı	18 <u>1</u> /
Town of Parker 1 well - $NW_u^1NW_u^1$, Sec. 7, T. 9 N., R. 19 W., G&SRM	Diversion Return Consumptive Use	44	47	58	76	90	120	141	117	101	84	61	51	. 990 <u>1</u> /

DIVERSIONS FROM MAINSTREAM — AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF ARIZONA

(ACRE - FEET) Sheet 2 of 4

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTAL
Colorado River Indian Reservation Diversion at Headgate Rock Dam Pumped from 2 wells in Parker SWLNELSEL, Sec. 2, T. 9 N., R. 21 W.,	Diversion Diversion	կ,340 կ	30,242 5	51,010 6	60,346 6	63,288 7	76,809 9	87,373 9	75,587 9	55,611 8	30,631 6	21,204 5	24,389 4	580,830 78
G&SEM 4 wells in Poston	Diversion	5	6	6	8	10	12	13	13	12	9	7	6	10
NW ¹ ₁ , Sec. 36, T. 8 N., R. 21 W., G&SRM 3 pumps SW ¹ ₄ SW ¹ ₄ NE ¹ ₄ , Sec. 1 ¹ 4, T. 5 N., R. 22 W., G&SRM	Diversion	37	104	174	195	215	195	175	182	181	149	156	130	1,89
3 pumps NELSWLNWL, Sec. 14, T. 4 N., R. 22 W., G&SRM	Diversion	178	504	851	946	1,044	946	851	883	883	725	756	630	9,19
	Return Consumptive Use	12,479 -7,915	11,077 19,784	19,504 32,543	22,296 39,205	26,497 38,067	23,597 54,374	28,807 59,614	2 9, 787 46,887	26,949 29,746	23,107 8,413	18,801 3,327	16,749 8,410	259,65 332,45
Cibola National Wildlife Refuge	Diversion Diversion	277 201	380 32 0	655 1,101	459 1,320	517 1,206	725 817	50 ⁴ 823	307 708	208 208	0 686	540 499	710 422	5,28 8,92
	Return Consumptive Use	0 478	0 700	0 1,756	0 1,779	0 1, 7 23	25 1,51 7	414 913	218 7 97	0 1,027	0 686	0 1,039	0 1,132	65 13,54
Imperial National Wildlife Refuge 2 wells NWHNWHWL, Sec. 13, T. 5 S., R. 22 W., G&SRM SWHNDHSWL, Sec. 13, T. 5 S., R. 22 W., G&SRM	Diversion Return Consumptive Use													27
Yuma Proving Ground Diversion at Imperial Dam	Diversion Return Consumptive Use	1	0	0	o	3	0	2	0	0	. 2	0	0	
North Gila Valley Irrigation District Diversion at Imperial Dam	Diversion Return Consumptive Use	1,533 190 1,343	2,901 90 2,811	3,241 209 3,032	4,428 209 4,219	4,925 373 4,552	4,785 486 4,299	5,406 722 4,684	3,907 793 3,114	3,559 614 2,945	4,069 500 3,569	3,335 562 2,773	3,014 591 2,423	45,10 5,33 39,76
Warren Act Contractors Diversion at Imperial Dam	Diversion Return Consumptive Use	0	o	88	61	106	43	74	55	170	224	0	0	. 82

DIVERSIONS FROM MAINSTREAM — AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF ARIZONA

(ACRE	· FEET)	Sheet	3	of	4

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Wellton-Mohawk Irrigation and Drainage District														
Diversion at Imperial Dam	Diversion Return Consumptive Use	3,879 12,524 -8,645	16,255 12,153 4,102	21,064 14,964 6,100	30,374 14,652 15,722	33,707 16,534 17,173	41,359 15,237 26,122	41,190 15,085 26,105	34,057 15,055 19,002	32,890 14,363 18,527	20,767 15,723 5,044	15,393 15,933 -540	13,633 17,157 -3,524	304,568 179,380 <u>3</u> 125,188
Yuma Irrigation District														
Diversion at Imperial Dam Pumped from Private wells	Diversion Diversion Return Consumptive Use	1,319 621	5,13 7 5 7 9	3,936 635	5,811 991	6,823 1,019	6,633 1,327	6,722 1,241	6,384 1,324	4,576 1,131	4,740 840	4,251 614	3,123 7 26	59,455 11,048 <u>1</u> /
Yuma Mesa I. & D. D., Diversion at Imperial Dam	Diversion Return Consumptive Use	6,954	10,520	12,871	19 ,67 5	26,951	29,433	29,456	24,529	23,699	17,032	13,756	9,426	224,302 <u>5</u>
Unit "B" I. & D. D. Diversion at Imperial Dam	Diversion Return Consumptive Use	660	1,735	1,904	3,142	4,348	4,552	4,596	4,619	3,512	3,352	2,505	1,719	36,644 <u>6</u> 1
Return from South Gils Valley	Returns	2,463	1,264	4,127	5,464	5,984	5,297	6,099	5,638	5,385	4,918	4,273	4,006	54,918
City of Yuma														
Diversion at Imperial Dam	Diversion Return Consumptive	737 544 193	778 387 391	944 562 382	'1,171 466 705	1,318 478 840	1,609 487 1,122	1,526 476 1,050	1,250 518 732	1,389 463 926	1,172 464 708	952 452 500	926 493 433	13,772 5,790 7,982
Yuma County Water Users Association Diversion at Imperial Dam Pumped from wells	Diversion Diversion Return Consumptive Use	8,413 836 5,811 3,438	17,306 675 5,803 12,178	27,007 758 7,071 20,694	30,820 682 7,126 24,376	29,794 757 7,338 23,213	34,429 764 7,648 27,545	36,360 886 8,004 29,242	26,316 681 8,196 18,801	22,608 752 7,620 15,740	21,006 766 8,471 13,301	13,488 597 7,875 6,210	12,865 661 7,488 6,038	280,412 <u>7</u> 8,815 88,451 200,776
Cocopah Indian Reservation Diversion at Imperial Dam Pumped from wells	Diversion Diversion Return Consumptive Use	0	0	169 6	142 4	104 3	162 5	141 4	129 4	0	0	11 1	74 5	932 32 <u>1</u> /
Projected and Regulatory Pumping Unit	Return	13	20	5	0	11	21	43	0	0	50	o	0	163 <u>8</u>
Yuma Mesa Outlet Drain	Return	1,214	0	1,212	2,516	0	1,407	1,190	1,678	2,043	1,997	2,095	2,406	17,758 8

DIVERSIONS FROM MAINSTREAM - AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF ARIZONA

(ACRE - FEET) Sheet 4 of 4

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Arizona Department of Game & Fish Wildlife Enhancement under Title 1 Mitigation 1 well SE#SE#NW; , Sec. 35, T. 10 S., R. 25 W., G&SRM	Diversion Return Consumptive Use	24	22	10	0	0	0	0	0	0	0	0	0	56 <u>1</u> /
Other users pumping from Colorado River and wells in flood plain Davis Dam to International Boundary	Diversion 9/	1,738	3,670	7,959	10,329	10,101	9,306	9,618	8,880	8,819	6,710	5,237	4,089	86,456 <u>1</u> /
Arizona Totals	Diversion Return Consumptive Use	33,408 35,238 -1,830	95,359 30,794 64,565	142,073 47,654 94,419	181,992 52,729 129,263	194,457 57,215 137,242	225,163 54,205 170,958	239,064 60,840 178,224	199,884 61,883 138,001	168,565 57,437 111,128	55,230	57,072		1,770,040 <u>12</u> 619,187 1,150,853 <u>12</u>

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.

2/ Calculated from monthly power records.

3/ This figure may include some Gila River water. No effort has been made in this or past reports to segregate the Gila River component from the Coloraco 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 flow credit for Gila River water. This figure includes 177,990 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 as well from South Gila Valley.
5/ Includes deliveries to the following water users who have contracts with the United States.

Contractor	Point of Delivery	Annual Delivery (acre-feet)
City of Yuma	B3.7 Lateral	6
Desert Lawn Memorial	B3.7 Lateral .	137
Southern Pacific Company	B3.7 Lateral	12
Southern Pacific Company	After bay of Yuma Mesa Pumping Plant	49
Yuma Mesa Fruit Growers Association	B3.7 W. Lateral	12
County of Yuma, Arizona	B3.8 Lateral	12
Marine Corps Air Station, Department of the Navy	B Canal and B-5.5 W Lateral	1,580 1,808
TOTAL		1,808
6 Includes deliveries to the following water users who	have contracts with the United States.	
University of Arizona	B Main Canal	902
Camille Alec, Jr.	B-8 Lateral	96
7/ Includes deliveries to the following water users who	have contracts with the United States.	
Yuma Union High School District	Yuma Main Canal	245
City of Yuma - Smucker Park	Yuma Main Canal	73

8/ Returns include unknown quantities of drainage returns from Yuma Mesa Irrigation and Drainage District as well as from Yuma County Water Users' Association and Cocopah Indian Reservation.

| 5/ Returns include unknown quantities of drainage returns from Yuma Mesa Irrigation and Drainage District as well as from Yuma County Water Users' Association and Cocopah Indian Reservation.

| 10/ Monthly distribution not available, distributed according to monthly distribution of other users in immediate area.

| 11/ Monthly distribution not available.
| 12/ The total is 275 acre-feet greater than the sum of monthly totals because of nonavailable monthly distribution of diversion by Imperial National Wildlife Refuge.

DIVERSIONS FROM MAINSTREAM — AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF ARIZONA

(ACRE - FEET) Sheet 1 of 5

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS 1/
Wayne Burges 2 wells SwisEiSwi, Sec. 34, T. 4 N., R. 22 W., G&SRM	Diversion	140	77	457	749	1,223	519	515	630	401	196	128	391	5,426 <u>2</u> /
Arkelian Farms 2 pumps SELNWLSEL, Sec. 16, T. 1 N., R. 23 W., G&SRM	Diversion													2,526
Sprawl (A. Towery) 1 pump SELSWLNWL, Sec. 21, T. 1 N., R. 23 W., G&SRM	Diversion													3,192
Cibola Valley Irrigation and Drainage District 3 pumps SELSELNEL, Sec. 20, T. 1 N., R. 23 W., C&SRM	Diversion	405	647	2,223	2 ,6 66	2,435	1,649	1,661	1,430	1,654	1,385	1,008	852	18,015 <u>2</u> /
Swan, Ron 1 pump SwinwinEi, Sec. 2, T. 15 N., R. 24 W., G&SRM	Diversion													7 20
Bishop, Louis 1 pump NWLSWLSWL, Sec. 31, T. 1 S., R. 23 W., G&SRM	Diversion													990
Martinez, Sam 2 pumps $NW_{\overline{u}}^{1}NW_{\overline{u}}^{1}SW_{\overline{u}}^{1}$, Sec. 1, T. 2 S., R. 24 W., G&SRM	Diversion													2,592 <u>5</u> /
BLM Permitees Davis Dam to Imperial Dam	Diversion													66
Subtotals - Davis Dam to Imperial Dam	Diversion 3/ Diversion 4/	545 235	724 312	2,680 1,153	3,415 1,469	3,658 1,574	2,168 933	2,176 936	2,060 886	2,055 884	1,581 680	1,136 489	1,243 535	23,441 10,086

DIVERSIONS FROM MAINSTREAM -- AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF ARIZONA

(ACRE · FEET) Sheet 2 of 5

	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	0070050		DECEMBED	
								AUGUST	SEPIEMBER	OCTUBER	NOVEMBER	DECEMBER	TOTALS
Diversion													228
Diversion													222
-			- 1 -			_				_			
Diversion	0	176	143	31	75	158	161	175	126	138	152	20	1,355
Diversion	0	0	114	24	76	71	226	247	178	31	0	0	967
Diversion,	397	1,189	1,551	2,164	1,952	2,328	2,226	2,011	1,983	1,124	1,257	1,032	19,214
Diversion													7 20
Diversion	2	0	156	96	44	159	305	304	255	0	0	0	1,321
Diversion													1,590
Diversion													1,590
51 76151 61													-, >>
Diversion	o	63	34	73	60	95	52	49	8	16	0	42	498
Diversion	42	45	33	28	32	57	42	53	42	24	24	39	461
Diversion	54	25	149	135	124	209	285	2 7 8	242	0	137	41	1,679
Diversion													1,458
	Diversion	Diversion Diversion	Diversion 0 176 Diversion 0 0 Diversion 397 1,189 Diversion 2 0 Diversion 2 0 Diversion 0 63 Diversion 42 45 Diversion 54 25	Diversion 0 176 143 Diversion 0 0 114 Diversion 397 1,189 1,551 Diversion 2 0 156 Diversion 2 0 156 Diversion 0 63 34 Diversion 42 45 33 Diversion 54 25 149	Diversion Diversion O 176 143 31 Diversion O 0 114 24 Diversion 397 1,189 1,551 2,164 Diversion 42 45 33 28 Diversion 54 25 149 135	Diversion Diversion 0 176 143 31 75 Diversion 0 0 114 24 76 Diversion 397 1,189 1,551 2,164 1,952 Diversion Diversion 2 0 156 96 44 Diversion Diversion Diversion Diversion Diversion Diversion 42 45 33 28 32 Diversion 54 25 149 135 124	Diversion Diversion 0 176 143 31 75 158 Diversion 0 0 114 24 76 71 Diversion 397 1,189 1,551 2,164 1,952 2,328 Diversion Diversion 2 0 156 96 44 159 Diversion Diversion Diversion Diversion Diversion 0 63 34 73 60 95 Diversion 42 45 33 28 32 57 Diversion 54 25 149 135 124 209	Diversion Diversion O 176 143 31 75 158 161 Diversion O 0 114 24 76 71 226 Diversion 397 1,189 1,551 2,164 1,952 2,328 2,226 Diversion 54 25 149 135 124 209 285	Diversion Diversion O 176 143 31 75 158 161 175 Diversion O 0 114 24 76 71 226 247 Diversion 397 1,189 1,551 2,164 1,952 2,328 2,226 2,011 Diversion 54 25 149 135 124 209 285 278	Diversion Diversion O 176 143 31 75 158 161 175 126 Diversion O 0 114 24 76 71 226 247 178 Diversion Diversion 2 0 156 96 44 159 305 304 255 Diversion 42 45 33 28 32 57 42 53 42 Diversion 54 25 149 135 124 209 285 278 242	Diversion Diversion O 176 143 31 75 158 161 175 126 138 Diversion O 0 114 24 76 71 226 247 178 31 Diversion 397 1,189 1,551 2,164 1,952 2,328 2,226 2,011 1,983 1,124 Diversion Diversion Diversion Diversion Diversion Diversion Diversion O 63 34 73 60 95 52 49 8 16 Diversion Diversion Diversion 42 45 33 28 32 57 42 53 42 24 Diversion 54 25 149 135 124 209 285 278 242 0	Diversion Diversion O 176 143 31 75 158 161 175 126 138 152 Diversion O 0 114 24 76 71 226 247 178 31 0 Diversion 397 1,189 1,551 2,164 1,952 2,328 2,226 2,011 1,983 1,124 1,257 Diversion 54 25 149 135 124 209 285 278 242 0 137	Diversion Diversion O 176 143 31 75 158 161 175 126 138 152 20 Diversion O 0 114 24 76 71 226 247 178 31 0 0 Diversion 397 1,189 1,551 2,164 1,952 2,328 2,226 2,011 1,983 1,124 1,257 1,032 Diversion Diversion Piversion 2 0 156 96 44 159 305 304 255 0 0 0 Diversion Diversion Diversion Diversion Diversion O 63 34 73 60 95 52 49 8 16 0 42 Diversion Diversion 42 45 33 28 32 57 42 53 42 24 24 39 Diversion 54 25 149 135 124 209 285 278 242 0 137 41

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DIVERSIONS FROM MAINSTREAM -- AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF ARIZONA

(ACRE - FEET) Sheet 3 of 5

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS 1
Vukasovich 1 well SELHELSWL, Sec. 24, T. 8 S., R. 22 W., G&SRM	Diversion	0	o	0	0	1	0	0	0	0	21	25	28	7 5 <u>2</u>
1 well Swisswissi, Sec. 24, T. 8 S., R. 23 W., G&SRM	Diversion	30	28	55	67	71	95	74	63	90	49	23	50	695 2
Sunkist of Yuma 1 well NEWSELSWL, Sec. 23, T. 8 S., R. 23 W., G&SRM	Diversion	0	2	2	6	7	12	7	5	8	ì,	5	ц	6 2 <u>2</u>
Yucca Power Plant 1 well NELNWESWE, Sec. 36, T. 16 S., R. 21 E., SEM	Diversion													883
Nunnaley (G. Russell) 1 well $NE_{\pm}^{1}SE_{\pm}^{1}SW_{\pm}^{1}$, Sec. 26, T. 16 S., R. 22 E., SEM	Diversion	2	2	8	51	4	38	58	57	38	16	2	2	2 7 8 <u>2</u>
Power, Bill 1 pump SWLSWLNEL, Sec. 30, T. 16 S., R. 22 E., SEM	Diversion													1,980
Power, R. E. (P. Power) 1 pump SWLSWLNEL, Sec. 30, T. 16 S., R. 22 E., SEM	Diversion													1,920
Hall, Ansil l pump NW ¹ uSW ¹ uNW ¹ , Sec. 36, T. 16 S., R. 21 E., SEM	Diversion													480
Burrell l well NWLNELNWL, Sec. 33, T. 8 S., R. 24 W., G&SRM	Diversion													192
Ranch 220 Trust 284	Diversion	0	14	64	135	110	128	95	165	176	159	74	63	1,183 2
$SE_{u}^{1}NE_{u}^{1}NW_{u}^{1}$, Sec. 19 T. 9 S., R. 24 W., G&SRM 1 well	Diversion	0	10	37	78	63	74	60	94	100	90	. 43	37	686
$Nw_{1}^{L}SE_{1}^{L}Nw_{1}^{L}$, Sec. 19 T. 9 S., R. 24 W., G&SRM 1 well $NE_{1}^{L}SE_{1}^{L}Nw_{1}^{L}$, Sec. 19, T. 9 S., R. 24 W., G&SRM	Diversion	0	8	34	71	58	68	56	87	92	83	39	33	629

DIVERSIONS FROM MAINSTREAM — AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF ARIZONA

(ACRE - FEET) Sheet 4 of 5 TOTALS 1 APRIL MAY JUNE JULY **AUGUST** SEPTEMBER OCTOBER NOVEMBER DECEMBER MARCH WATER USER JANUARY FEBRUARY Consoul, Lee 127 3,251 2/ 266 256 281 334 264 596 376 1 well Diversion 135 253 279 $NE_{u}^{1}NW_{u}^{1}NW_{u}^{1}$, Sec. 31, T. 9 S., R. 24 W., G&SRM 256 84 2,167 2/ 126 403 1 well Diversion 91 172 177 167 217 243 177 NETNETNET, Sec. 36, T. 9 S., R. 25 W., G&SRM Brand, W. - Donnely, D. 840 1 well Diversion $NE_{u}^{1}NW_{u}^{1}NE_{u}^{1}$, Sec. 35, T. 9 S., R. 25 W., G&SRM Sibley, Phil l well Diversion 25 55 28 183 124 137 270 140 113 67 76 31 1,249 2/ $NE_{L}^{1}NW_{L}^{1}NW_{L}^{1}$, Sec. 1, T. 10 S., R. 25 W., G&SRM 1,086 l well Diversion $NW_{u}^{1}SE_{u}^{1}NE_{u}^{1}$, Sec. 2, T. 10 S., R. 25 W., G&SRM 89 0 42 50 34 19 2 90 326 2/ 1 well 0 Diversion NW SELNE, Sec. 14, T. 10 S., R. 25 W., G&SRM Daniel, A. T. (Cummings) 360 1 well Diversion $NW_{ij}^{1}NE_{ij}^{1}NW_{ij}^{1}$, Sec. 26, T. 10 S., R. 25 W., G&SRM Cummings, C. & J. 960 Diversion $NW_{u}^{1}NE_{u}^{1}NW_{u}^{1}$, Sec. 26, T. 10 S., R. 25 W., G&SRM Barkley, J. 360 1 well Diversion $NE_{u}^{1}NW_{u}^{1}SW_{u}^{1}$, Sec. 35, T. 10 S., R. 25 W., G&SRM Moore, Marlin P. 587 <u>2</u>/ Diversion 33 62 119 57 16 32 $NE_{4}^{1}NW_{4}^{1}NW_{4}^{1}$, Sec. 2, T. 11 S., R. 25 W., G&SRM Hughes, Earl 1 well 0 36 58 202 221 237 9 0 299 314 7 0 1,383 2/ Diversion $SW_{ij}^{1}NE_{ij}^{1}SE_{ij}^{1}$, Sec. 3, T. 11 S., R. 25 W., G&SRM 38,060 14,869 Arizona Subtotals Diversion 3/ 690 1,897 2,971 3,909 3,507 4,460 4,672 4,260 4,226 3,201 2,602 1,665 Diversion 4 646 Imperial Dam to International Boundary 268 737 1,155 1,536 1,362 1,745 1,834 1,674 1,654 1,248 1,010 1,738 9,618 8,880 8,819 6,710 5,237 4,089 86,456 Arizona Totals Diversion 3,670 7,959 10,329 10,101 9,306

DIVERSIONS FROM MAINSTREAM - AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF ARIZONA

(ACRE - FEET) Sheet 5 of 5

TOTALS AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER WATER USER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY

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 which monthly distribution is shown.
4/ Total of items for which monthly distribution is not shown. Distributed according to monthly distribution of other users in immediate area.
5/ Contract farming for Arizona Department of Game & Fish.

DIVERSIONS FROM MAINSTREAM - AVAILABLE RETURN FLOW

AND CONSUMPTIVE USE OF SUCH WATER

CALENDAR YEAR 1979

STATE OF CALIFORNIA

(ACRE · FEET) Sheet 1 of 2

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Fort Mohave Indian Reservation Pumped from wells	Diversion 8/ Return Consumptive Use	379	536	799	1,761	1,142	1,315	1,318	1,632	1,347	706	530	307	11,772 <u>1</u>
City of Needles 4 wells $NW_{u}^{1}SW_{u}^{1}$, Sec. 29, T. 9 N., R. 23 E., SEM	Diversion Return Consumptive Use	7 8 31 47	84 31 53	128 45 83	192 47 145	229 65 164	337 76 261	416 83 333	379 84 295	358 80 278	267 57 210	145 45 100	100 32 68	2,713 676 2,037
San Bernardino County 1 well	Diversion Return Consumptive Use	1	1	1	1	1	2	2	2	1	1	1	1	15 <u>1</u>
Metropolitan Water District of Southern California Diversion from Lake Havasu	Diversion Return Consumptive Use	49,048 354 48,694	39,414 314 39,100	51,804 351 51,453	75,002 308 74,694	86,305 301 86,004	81,950 300 81,650	81,790 296 81,494	81,815 321 81,494	60,692 310 60,382	69,237 325 68,912	67,183 324 66,859	68,368 347 68,021	812,608 3,851 808,757
Parker Dam and Government Camp Diversion at Parker Dam	Diversion 8/ Return Consumptive Use	14 1 13	15 1 14	18 1 17	24 2 22	28 3 25	38 3 35	45 4 41	37 3 34	32 3 29	2 7 2 25	19 1 18	16 1 15	313 25 288
Colorado River Indian Reservation 6/ Pumped from 11 pumps 1 well - Big River	Diversion Diversion Return Consumptive Use	331 0	253 1	444 1	1,092	1,582 1	843 1	902 2	8 0 4 2	1,166 2	36 2	321 1	344 1	8,444 14 <u>1</u>
Palo Verde Irrigation District Diversion from Palo Verde Dam	Diversion Return Consumptive Use	30,102 35,866 -5,764	53,475 29,036 24,439	81,609 36,598 45,011	105,879 41,645 64,234	107,150 45,530 61,620	107,823. 43,738 64,085	113,813 46,304 67,509	99,968 48,852 51,116	94,7 7 2 45,322 49,450	57,226 42,197 15,029	50,200 39,207 10,993	49,740 37,852 11,888	951,757 492,147 459,610
Yuma Project Reservation Division Indian Unit Diversion at Imperial Dam	Diversion Return Consumptive Use	727	2,156	4,597	4,634	3,999	6,218	6,988	3,931	2,181	1,739	1,188	900	39 , 258
Yuma Project Reservation Division Bard Unit Diversion at Imperial Dam	Diversion Return Consumptive Use	1,071	3,620	3,501	3,709	5,313	7,486	7,220	5,682	2,673	3,484	2,792	2,359	48,910 <u>]</u>

DIVERSIONS FROM MAINSTREAM - AVAILABLE RETURN FLOW

AND CONSUMPTIVE USE OF SUCH WATER

CALENDAR YEAR 1979

STATE OF CALIFORNIA

(ACRE - FEET) Sheet 2 of 2

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Returns from Yuma Project Reservation Division Returns	Returns 2/	1,880	1,488	2,243	2,108	2,221	2,290	2,508	2,461	1,596	1,868	1,863	1,683	24,209
Imperial Irrigation District Diversion at Imperial Dam	Diversion Return Consumptive Use	78,077	163,044	258,863	354,318	310,910	283,508	311,491	301,207	286,264	228,235	157,964	150,354	2,884,235 <u>1</u> /
Coachella Valley Water District Diversion at Imperial Dam	Diversion Return Consumptive Use	22 , 91 7	29,272	39,133	55,602	56,623	58,371	58,247	55,456	55,656	41,685	30,739	27,032	530,733 <u>1</u> /
City of Winterhaven 1 well SELSELNEL, Sec. 27, T. 16 S., R. 22 E., SEM	Diversion Return Consumptive Use													110 <u>3/</u>
Other Users pumping from Colorado River and wells in flood plain Nevada-California stateline to International Boundary 4/ (18 miles south of Davis Dam to the International Boundary)	Diversion 4/ Return Consumptive Use	369	19 7	2,228	1,509	1,460	2,712	3,294	3,706	2,035	434	238	267	18,449 <u>1</u> /
California Totals	Diversion Return Consumptive Use	183,114 38,132 144,982	292,068 30,870 261,198	443,126 39,238 403,888	603,724 44,110 559,614	574,743 48,120 526,623	550,604 46,407 504,197	585,528 49,195 536,333	51,721	507,179 47,311 459,868	403,404 44,449 358,955	311,321 41,440 269,881	39,915	5,309,331 <u>5/</u> 520,908 4,788,423 <u>5</u> /

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 river.

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^{1/} No surface returns.
2/ Returns unassigned include unknown quantities of drainage from the Indian Unit and the Bard Unit in the Reservation Division but exclude seepage from the All-American Canal.
3/ Monthly distribution not available.
4/ Details on California Supplemental Sheets 1-3.

^{4/} Details on california Supplemental Sneets 1-3.

5/ The total is 110 acre-feet greater than the sum of monthly totals because of nonavailable monthly distribution of diversion by City of Winterhaven.

6/ 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.

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

8/ Total of items for which monthly distribution is not shown. Distributed according to monthly distribution of other users in immediate area.

SEPTEMBER OCTOBER NOVEMBER DECEMBER

(ACRE - FEET) Sheet 1 of 3

DIVERSIONS FROM MAINSTREAM — AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF CALIFORNIA

JANUARY FEBRUARY

WATER USER

JUNE

AUGUST

MAY

Soto Brothers 840 1 well Diversion $SW_{\frac{1}{4}}NE_{\frac{1}{4}}^{1}SE_{\frac{1}{4}}^{1}$, Sec. 36, T. 11 N., R. 21 E., SEM Deason, Richard (Tri-State) 1 well Diversion 1,200 $NW_{ij}^{1}NE_{ij}^{1}NW_{ij}^{1}$, Sec. 31, T. 11 N., R. 22 E., SEM Diversion 720 $SE_{4}^{1}NE_{4}^{1}SW_{4}^{1}$, Sec. 36, T. 11 N., R. 21 E., SHM R. L. Lyle 66 Diversion $SE_{L}^{1}NE_{L}^{1}NW_{L}^{1}$, Sec. 16, T. 1 S., R. 24 E., SEM BLM Permittees Diversion 150 Subtotals - Davis Dam to Imperial Dam Diversion 4/ 60 33 243 235 437 531 597 328 70 39 2,976 359 Cole (R. Land) 1 well 636 Diversion SW1SE1SE1, Sec. 35, T. 15 S., R. 23 E., SEM 382 <u>2</u>/ 15 43 1 well 1 112 97 93 21 ٥ Diversion $NW_{4}^{1}NW_{4}^{1}NW_{4}^{1}$, Sec. 2, T. 16 S., R. 23 E., SEM Duke (P. Power) Diversion 1,992 $NW_{\overline{u}}^{1}SW_{\overline{u}}^{1}SW_{\overline{u}}^{1}$, Sec. 14, T. 16 S., R. 23 E., SEM H. Mitchell 1 well 68 **7**9 53 3 0 507 2/ Diversion $SE_{u}^{1}SE_{u}^{1}NW_{u}^{1}$, Sec. 22, T. 16 S., R. 23 E., SEM Perez F. (Slade) 67 167 214 946 2/ 1 well Diversion 225 26 150 13 $NE_{u}^{1}SE_{u}^{1}SW_{u}^{1}$, Sec. 6, T. 8 S., R. 22 W., G&SRM Barrett (R. Harp) 858 l well Diversion $SE_{u}^{1}SW_{u}^{1}NW_{u}^{1}$, Sec 6, T. 8 S., R. 22 W., G&SRM Spencer M. 1 well $SW_{\underline{u}}^{\underline{1}}SW_{\underline{u}}^{\underline{1}}$, Sec. 9, T. 16 S., R. 23 E., G&SRM 437 2/ 132 Diversion 15 91 0 109

DIVERSIONS FROM MAINSTREAM --- AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF CALIFORNIA

(ACRE - FEET) Sheet 2 of 3

WATER USER		JANUARY FE	BRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Martin M. (A. Dees) 1 pump NETNWINWI, Sec. 1, T. 8 S., R. 23 W., G&SRM 1 pump SEUNETNWI, Sec. 1, T. 8 S., R. 23 W., G&SRM	Diversion Diversion	0	2	o 75	0 24	0 21	18 69	0 165	o 69	0 51	0	0	0	2 47
Schaffer, F. (R. Harp) 1 well SwisEinEi, Sec. 2, T. 8 S., R. 23 W., G&SRM	Diversion	0	0	139	O	17	68	194	244	80	0	0	0	74
Coley M. 1 well SE _G SELSU, Sec. 18, T. 16 S., R. 23 E., SEM	Diversion	o	0	o	47	o	53	49	60	53	0	o	o	26
Taylor Brothers 1 well NE _U SELSEL, Sec. 2, T. 8 S., R. 23 W., G&SRM	Diversion	1	0	100	26	107	128	150	135	104	19	1	0	77
Wilson (R. Harp) 1 well NELNWLNWL, Sec. 12, T. 8 S., R. 23 W., G&SRM	Diversion	14	3	47 •	30	36	68	93	101	63	19	19	25	51
Easterday, Anne 1 well Sw $_{n}^{L}$ SW $_{n}^{L}$ SE $_{n}^{L}$, Sec. 1, T. 8 S., R. 23 W., G&SRM	Diversion	2	0	4	120	0	41	7 5	104	14	o	0	o	36
Dees, John 1 well SE $_{\mathbf{u}}^{\mathbf{L}}$ NE $_{\mathbf{u}}^{\mathbf{L}}$ SE $_{\mathbf{u}}^{\mathbf{L}}$, Sec. 1, T. 8 S., R. 23 W., G&SRM	Diversion	106	6	123	193	264	323	303	320	269	189	7 8	50	2,22
Evans E. (R. Harp) 1 well SE _W NE _W 1, Sec. 12, T. 8 S., R. 23 W., G&SRM	Diversion	1	2	2	37	0	24	0	156	2	0	o	3	22
iarp P. 1 well SW $_{\mathbf{u}}^{\mathrm{NE}}$, Sec. 12, T. 8 S., R. 23 W., G&SRM	Diversion													88:
Sasterday, Kenneth 1 well NWuSELSWu, Sec. 12, T. 8 S., R. 23 W., G&SRM	Diversion	8	12	90	214	43	145	136	136	332	12	7	60	1,199
Smith F. (P. Power) 1 well NE $_{\mathbf{L}}^{\perp}$ SW $_{\mathbf{L}}^{\perp}$ SE $_{\mathbf{L}}^{\perp}$, Sec. 11, T. 8 S., R. 23 W., G&SRM	Diversion	O	10	69	74	95	68	117	132	59	10	35	22	69

DIVERSIONS FROM MAINSTREAM - AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF CALIFORNIA

(ACRE · FEET) Sheet 3 of 3

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS 1/
Musgrave (Barkley Company) 1 well NELSELSWL, Sec. 19, T. 16 S., R. 23 E., SEM	Diversion	0	0	0	30	0	25	31	34	15	0	0	0	135 <u>2</u> /
Slade W. 1 pump $SW_{L}^{1}NE_{L}^{1}SE_{L}^{1}$, Sec. 29, T. 16 S., R. 22 E., SHM	Diversion	0	2	54	o	27	26	60	26	0	o	0	0	195 <u>2</u> /
Hudson C. A. 1 pump NE _u NW _u SW ₄ , Sec. 29, T. 16 S., R. 22 E., SHM	Diversion	0	0	155	6	110	200	174	196	64	o	0	0	905 <u>2</u> /
Cloud 1 well NW\u00e4NW\u00e4, Sec. 29, T. 16 S., R. 22 E., SHM	Diversion	o	10	19	12	3	15	14	0	32	9	0	0	114 2/
Subtotals - Imperial Dam to Boundary	Diversion $\frac{3}{4}$	222 8 7	118 46	1,341 528	909 357	8 7 9 3 46	1,633 642	1,983 780	2,231 8 7 8	1,225 482	261 103	143 56	160 63	11,105 4,3 6 8
Total California	Diversion	369	197	2,228	1,509	1,460	2,712	3,294	3,706	2,035	434	238	267	18,449

^{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 average power-discharge rate.
3/ Total of items which monthly distribution is shown.
4/ Total of items for which monthly distribution is not shown. Distributed according to monthly distribution of other users in immediate area.

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DIVERSIONS FROM MAINSTREAM — AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF NEVADA

(ACRE - FEET) Sheet 1 of 3

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Boulder City Diversion at Hoover Dam Diversion at Saddle Island, Lake Mead	Diversion Diversion <u>l</u> / Return Consumptive Use	эц 28	37 104	47 152	53 282	66 386	95 47 9	97 521	90 393	82 421	52 3 7 3	515 79	43 165	739 3 ,5 82 <u>2</u> /
Lake Mead National Recreation Area Diversion at Lake Mead Diversion at Saddle Island, Lake Mead	Diversion Diversion 3/ Return Consumptive Use	31 1	27 1	43 2	88 6	84: 7	99 10	111 10	103 6	93 7	86 5	72 4	53 3	890 62 <u>2</u> /
Basic Management Inc. Diversion at Saddle Island, Lake Mead	Diversion Return Consumptive Use	530	478	554	598	610	970	1,043	1,018	1,036	77 3	606	749	8,965 <u>2</u> /
City of Henderson Diversion at Lake Mead Diversion at Saddle Island, Lake Mead	Diversion 1/ Diversion 3/ Return Consumptive Use	13 296	12 322	29 399	9 7 604	331 540	437 640	614 5 75	502 481	477 514	353 484	56 487	58 389	2,979 5,731 <u>2</u> /
Las Vegas Valley Water District Diversion at Saddle Island, Lake Mead	Diversion $\frac{1}{2}$ /Return Consumptive Use	3,510	3,056	3,606	5,567	6,888	7,625	9,270	9,063	9,623	8,857	7,235	5,863	80,163 <u>2</u>
Nevada State Department of Fish and Game Diversion at Saddle Island, Lake Mead	Diversion <u>3/</u> Return Consumptive Use	390 390 0	346 345 1	383 383 0	338 337 1	383 383 0	357 357 0	359 358 1	356 355 1	346 345 1	348 348 0	364 363 1	375 375 0	4,345 4,339 6
Pacific Coast Building Products, Inc. Diversion at Gypsum Wash	Diversion Return Consumptive Use	40	47	51	50	52	56	48	31	48	42	45	· 5 3	563 <u>2</u> ,
City of North Las Vegas Diversion at Saddle Island, Lake Mead	Diversion 1/ Return Consumptive Use	66	130	315	653	999	1,360	1,338	1,023	986	7 33	324	359	8,286 <u>2</u>
					÷									

DIVERSIONS FROM MAINSTREAM - AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF NEVADA

(ACRE - FEET) Sheet 2 of 3

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Nellis Air Force Base Diversion at Saddle Island, Lake Mead	Diversion Return Consumptive Use	95	94	159	196	257	293	298	235	222	182	107	89	2 ,227 <u>2</u> /
Ramelli, William C. Lot No. 3, Sec. 13, T. 32 S., R. 66 E., MDB&M	Diversion Return Consumptive Use													3 <u>4</u>
Southern California Edison Company Diversion at Pumping Plant in Sec. 24, T. 32 S., R. 66 E., MDB&M	Diversion Return Consumptive Use	771	989	645	988	8 7 6	843	1,345	1,414	856	1,458	1,103	646	11,93 ⁴ 2/
Wiebke, Armin T. Lot No. 1, Sec. 33, T. 32 S., R. 66 E., MDB&M (except W. 500' & E. 630')	Diversion Return Consumptive Use													5 <u>4</u>
Portenier, Warren E. W½, Lot No. 1, Sec. 33, T. 32 S., R. 66 E., MDB&M	Diversion Return Consumptive Use													42 <u>1</u>
Welles, John C. 1 pump E½, Lot No. 2, Sec. 33, T. 32 S., R. 66 E., MDB&M	Diversion Return Consumptive Use				. •									8 1
Cavanaugh, Milton E. 1 pump W=2, Lot No. 2, Sec. 33, T. 32 S., R. 66 E., MDB&M	Diversion Return Consumptive Use													8 1
LAS VEGAS WASH RETURN FLOWS	Returns	3,741	2,459	3,040	4,635	5,781	6,803	7,892	7,402	7,724	6,837	5,296	4,509	66,119
Nevada Totals	Diversion Return Consumptive Use	5,865 4,131 1,734	5,643 2,804 2,839	6,385 3,423 2,962	9,520 4,972 4,548	11,479 6,164 5,315	13,264 7,160 6,104	15,629 8,250 7,379	14,715 7,757 6,958	14,711 8,069 6,642	13,746 7,185 6,561	10,664 5,659 5,005	4,884	130,532 5 70,458 6 60,074 5

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DIVERSIONS FROM MAINSTREAM - AVAILABLE RETURN FLOW AND CONSUMPTIVE USE OF SUCH WATER CALENDAR YEAR 1979

STATE OF NEVADA

(ACRE - FEET) Sheet 3 of 3

AUGUST SEPTEMBER OCTOBER NOVEMBER DECEMBER TOTALS JANUARY FEBRUARY MARCH JUNE

NOTE: The term "Consumptive Use" in this tabulation means measured diversion including underground pumping less measured return flow and less unmeasured return flow to the river.

- 1/ Delivered through the facilities of the Southern Nevada Water Project.
 2/ No surface return.
 3/ Delivered through the facilities of Basic Management Inc.
 4/ Reports annually.
 5/ The monthly totals do not add to the annual total because of the nonavailability of monthly values footnoted 4/.
 6/ Estimate based on the percentage of Colorado River water used in the Las Vegas Valley.

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 1979

The following tabulations for calendar year 1979 show records of releases of mainstream water pursuant to orders therefore but not diverted by the party ordering the same, and the quantity of such water delivered to Mexico in satisfaction of the Mexican Treaty or diverted by others in satisfaction of decreed rights. Also shown are quantities of such rejected water delivered to Mexico in excess of Treaty requirements and quantities delivered to storage. The quantities delivered to storage were available to release for future use.

Water ordered but not diverted was analyzed daily for each diverter as the positive difference between the finally approved daily order and the mean daily delivery requested on the day the diversion was made. The monthly quantities shown on the tabulations are the sum of the daily positive quantities. Final approval of daily orders was given in advance of the delivery date by the amount of traveltime 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.

(ACRE - FEET) Sheet 1 of 3

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

CALENDAR YEAR 1979 STATE OF ARIZONA

SEPTEMBER OCTOBER NOVEMBER DECEMBER TOTALS APRIL MAY JUNE JULY AUGUST JANUARY FEBRUARY MARCH WATER USER 1,345 1,075 1,603 11,244 Colorado River Indian Reservation Ordered but not Diverted 1,365 1,101 Diversion at Headgate Rock Dam Delivered to Mexico in Satifaction of Treaty O Diverted by Others 3,115 Delivered to Storage 2/ 1,097 1,004 7,755 Delivered to Mexico in Excess of Treaty Yuma Proving Grounds U.S. Army Ordered but not Diverted n O O O Diversion at Imperial Dam 1/ Delivered to Mexico in Satisfaction of Treaty O Diverted by Others O Delivered to Storage 2/ O Delivered to Mexico in Excess of Treaty North Gila Valley Irrigation District Ordered but not Diverted 1,597 9,073 Diversion at Imperial Dam Delivered to Mexico in Satisfaction of Treaty n 2,640 Diverted by Others 5,991 Delivered to Storage 2/ 1,466 Delivered to Mexico in Excess of Treaty O n Warren Act Contractors Ordered but not Diverted O O Gila Project Districts Delivered to Mexico in Diversion at Imperial Dam 1/ Satisfaction of Treaty Diverted by Others O Ω Delivered to Storage 2/ Delivered to Mexico in Excess of Treaty O Wellton-Mohawk I. & D.D. Ordered but not Diverted 6,196 1,615 9,035 2,130 4,804 2,194 6,310 6,776 3,545 5,863 4,342 3,164 55,974 Diversion at Imperial Dam Delivered to Mexico in Satisfaction of Treaty 7.067 Diverted by Others Delivered to Storage 2/ 5,389 1,369 7,175 1,807 3,979 1,591 3,718 2,241 3,017 4,840 3,616 2,527 41,269 Delivered to Mexico in 1,061 Excess of Treaty 2,005 4,360 7,638

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

CALENDAR YEAR 1979

STATE OF ARIZONA

(ACRE - FEET) Sheet 2 of 3

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Yuma Irrigation District	Ordered but not Diverted	1,158	672	1,014	282	496	615	714	1,162	365	863	774	409	8,524
Diversion at Imperial Dam	Delivered to Mexico in Satisfaction of Treaty	0	•	_	•	•	•	•		•		^		•
	Diverted by Others	169	0 288	0 81	65	0 89	0 286	0 2 7 0	. 0 .38	0 192	0 107	0 228	0 2 7 8	0 2 ,09 1
	Delivered to Storage 2/	989	384	753	217	407	329	357	483	173	732	546	131	5,501
	Delivered to Mexico in	209	304	173	211	407	349	371	403	1/3	134	740	131	7,501
	Excess of Treaty	0	0	180	0	0	0	87	641	0	24	0	0	932
Yuma Mesa I. & D.D.	Ordered but not Diverted	3,338	2,465	2,817	2,317	1,684	2,757	1,686	4,756	1,922	3,191	1,785	1,168	29,886
Diversion at Imperial Dam	Delivered to Mexico in	3,33-	-,,	-,,	-,5-1	-,	-3121	2,000	1,170	-,,,	3,171	2,100	1,100	27,000
	Satisfaction of Treaty	0	0	0	0	0	0	0	0	0	0	0	0	0
	Diverted by Others	81	926	359	958	484	988	698	216	708	375	216	145	6,154
	Delivered to Storage 2/	3 ,257	1,539	2,315	1,359	1,200	1,769	738	9 7 8	1,214	2,756	1,569	1,023	19,717
	Delivered to Mexico in										-		•	
	Excess of Treaty	. 0	0	143	0	0	0	250	3,562	0	60	. 0	0	4,015
Unit B I. & D.D.	Ordered but not Diverted	147	230	161	222	216	411	232	389	361	343	149	119	2,980
Diversion at Imperial Dam	Delivered to Mexico in							_		_		•	•	• • •
	Satisfaction of Treaty	0	0	0	O	0	0	0	0	0	0	0	0	0
	Diverted by Others	0	52	0	4	0	. 95	36	20	210	44	2	14	467
	Delivered to Storage 2/	147	178	16 1	218	216	316	150	161	151	285	147	115	2,245
	Delivered to Mexico in													
	Excess of Treaty	0	0	0	. 0	0	0	46	208	0	14	0	0	268
City of Yuma	Ordered but not Diverted	1414	0	0.	0	0	0	217	416	0	22	7	0	706
Diversion at Imperial Dam	Delivered to Mexico in													
	Satisfaction of Treaty	0	0	0	O.	0	0	0	0	0	0	0	0	0
	Diverted by others	12	0	0	0	0	0	152	106	0	5	5	0	280
	Delivered to Storage 2/	32	0	0	0	0	0	32	51	0	16	2	0	133
	Delivered to Mexico in													
	Excess of Treaty	0	0	0	0	0	0	33	259	0	1	0	0	293
Yuma County Water Users' Association	Ordered but not Diverted	3,257	849	3,536	1,753	3,098	1,951	2,793	4,453	839	2,321	2,496	2,233	29,579
Diversion at Imperial Dam	Delivered to Mexico in				• • •				,		,	, ,-	, 55	
	Satisfaction of Treaty	0	0	0 *	0	0	0	0	. 0	0	0	0	0	0
	Diverted by Others	8 7 3	555	1,329	1,540	1,453	1,726	1,960	1,129	504	495	1,636	1,451	14,651
	Delivered to Storage 2/	2,384	294	1,817	213	1,645	225	415	552	335	1,682	860	782	11,204
	Delivered to Mexico in		-		_		-				•		•	•
	Excess of Treaty	0	0	390	0	0	0	418	2,772	0	144	0	0	3,724

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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

CALENDAR YEAR 1979 STATE OF ARIZONA

(ACRE - FEET) Sheet 3 of 3 SEPTEMBER OCTOBER NOVEMBER DECEMBER WATER USER JANUARY FEBRUARY MARCH APRIL MAY JUNE JULY AUGUST Cocopah Indian Reservation Ordered but not Diverted 10 9 11 22 14 98 Diversion at Imperial Dam Delivered to Mexico in Satisfaction of Treaty 0 0 0 0 0 0 0 0 0 0 0 0 0 Diverted by Others 0 0 8 5 8 8 5 0 0 9 51 Delivered to Storage 2/ 0 11 -5 1 2 0 1 29 Delivered to Mexico in Excess of Treaty 0 0 14 3 0 0 0 1 0 18 0 Arizona Totals Ordered but not Diverted 12,014 15,952 7,111 17,914 8,779 9,546 14,109 19,832 10,860 8,740 148,064 9,305 13,902 Delivered to Mexico in Satisfaction of Treaty 0 Diverted by Others 2,111 3,486 4,205 3,140 3,042 3,198 36,516 2,725 3,177 4,236 2,715 2,110 Delivered to Storage 2/ 13,841 4,740 8,837 13,412 5,293 5,310 6,668 4,909 6,165 11,309 7,818 5,542 93,844 Delivered to Mexico in Excess of Treaty 0 1,777 0 3,236 12,208 483 0 17,704

 $[\]frac{1}{2}$ No orders received. $\frac{2}{2}$ Available for future use.

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

CALENDAR YEAR 1979

STATE OF CALIFORNIA

(ACRE - FEET) Sheet 2 of 2

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Coachella Valley Water District Diversion at Imperial Dam	Ordered but not Diverted Delivered to Mexico in	1,823	1,111	278	0	278	555	3,055	3,332	972	1,666	, 0	555	13,625
	Satisfaction of Treaty	0	0	0	0	.0	. 0	. 0	. 0	o,	_0	0	0	0
	Diverted by Others	486	815	0	0	5/1/1	464	1,654	609	256	165	0	135	4,828 4,889
	Delivered to Storage 1/ Delivered to Mexico in	1,337	296	58	0	34	91	306	160	716	1,501	0	420	4,889
	Excess of Treaty	0	. 0	250	0	0	0	1,095	2,563	0	0	0	0	3,908
California Totals	Ordered but not Diverted Delivered to Mexico in	22,749	2,813	13,890	2,530	4,154	3,356	15,876	16,121	2,554	14,337	3,854	2,615	104,849
	Satisfaction of Treaty	0	0	,o	0	0	0	0	0	0	0	o	. 0	. 0
	Diverted by Others	1,827	1,722	2,515	1,416	1,514	870	2,946	1 ,67 2	1,274	1,086	1,904	681	19,427
	Delivered to Storage <u>1</u> / Delivered to Mexico in	20,922	1,091	2,451	1,114	2,640	2,486	2,688	1,358	1,280	9,002	1,950	1,934	48,916
	Excess of Treaty	0	0	8,924	0	0	0	10,242	13,091	0	4,249	0	0	36,506

1/ Available for future use.

V(C)

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

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

CALENDAR YEAR 1979
STATE OF CALIFORNIA

(ACRE - FEET) Sheet 1 of 2

WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Metropolitan Water District	Ordered but not Diverted	5,512	0	0	0	0	1,320	650	25	0	0	0	0	7,507
Diversion at Lake Havasu	Delivered to Mexico in													
	Satisfaction of Treaty	0	0	0	0	0	0	0	0	0	0	0	0	0
	Diverted by Others	0	0	0	0	0	0	0	0	0	0	0	0	0
	Delivered to Storage $1/$ Delivered to Mexico in	5,512	0	0	0	0	1,320	650	25	0	0	0	0	7,507
	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	Ordered but not Diverted Delivered to Mexico in	722	70 8	1,466	1,400	1,208	1,261	2,325	944	553	367	2,892	1,271	15,117
	Satisfaction of Treaty	0	0	0	0	0	0	0	0	0	0	0	0	C
	Diverted by Others	Ō	250	746	391	375	208	516	109	167	296	1,236	165	4,459
	Delivered to Storage 1/ Delivered to Mexico in	722	458	678	1,009	833	1,053	1,482	252	386	71	1,656	1,106	9,706
	Excess of Treaty	0	0	42	0	0	0	32 7	583	0	0	0	0	952
Yuma Project Reservation Division Bard Unit	Ordered but not Diverted Delivered to Mexico in	1,179	634	1,188	417	814	119	495	1,289	542	627	647	557	8,508
Diversion at Imperial Dam	Satisfaction of Treaty	0	0	0	0	0	0	0	0	0	0	0	0	(
22,010,000 00 22,000 200	Diverted by Others	6 76	419	562	3 7 0	343	107	198	526	448	131	449	269	4,498
	Delivered to Storage 1/ Delivered to Mexico in	503	215	403	47	471	12	126	227	94	423	198	288	3,007
	Excess of Treaty	0	0	223	. 0	0	0	171	536	0	73	O ₁	0	1,003
Yuma Project Reservation Division Indian Unit	Ordered but not Diverted Delivered to Mexico in	925	360	1,503	515	616	101	487	9 7 6	487	359	315	232	6,876
Diversion at Imperial Dam	Satisfaction of Treaty	0	0	0	o o	0	0	0	0	0	0	0	0	(
	Diverted by Others	530	238	711	457	260	9 1	195	398	403	75	219	112	3,689
	Delivered to Storage 1/ Delivered to Mexico in	395	122	509	58	356	10	124	172	84	242	96	120	2,288
	Excess of Treaty	0	0	283	0	0	0	16 8	406	0	42	0	0	899
Imperial Irrigation District Diversion at Imperial Dam	Ordered but not Diverted Delivered to Mexico in	12,588	0	9,455	198	1,238	o	8,864	9,555	o	11,318	0	0	53,216
*	Satisfaction of Treaty	0	0	0	0	0	0	0	0	0	0	0	0	(
	Diverted by Others	135	ŏ	496	198		ō	383	30	Ö	419	ō	ō	1,953
	Delivered to Storage 1/ Delivered to Mexico in	12,453	ŏ	833	0	292 946	ŏ	300	522	ŏ	6,765	ō	Ö	21,519
	Excess of Treaty	0	•	8,126	0	0	0	8,481	9,003	0	4,134	0	0	29,74

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 1979

V(D)

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

CALENDAR YEAR 1979

(ACRE - FEET)

WATER USER	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
Deliveries to Mexico in Satisfaction of Treaty	80,936	76,350	175,721	226, 912	110,144	151,626	229,995	234,640	141,518	88,683	56,750	126,725	1,700,000 <u>2</u> /
Passing to Mexico in Excess of Treaty requirements	21,659	35,616	38,300	14,673	205,908	176,011	182,139	183,143	188,745	220,073	225,947	153,199	1,645,413 <u>1/</u> <u>3</u> /

^{1/} Includes 177,990 acre-feet delivered pursuant to Minute 242.
2/ Includes 200,000 acre-feet scheduled under Paragraph (E), Article 15, of the 1944 Treaty with Mexico.
3/ Includes Painted Rock flood control releases and anticipatory flood control releases from Hoover Dam.

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 1979

DIVERSIONS OF WATER FROM MAINSTREAM OF GILA AND SAN FRANCISCO RIVERS

AND

CONSUMPTIVE USE OF SUCH WATER FOR BENEFIT OF THE GILA NATIONAL FOREST

CALENDAR YEAR 1979

(ACRE - FEET)

V(E)

	WATER USER		JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	TOTALS
	Gila River	Diversion Consumptive Use							···						0
	San Francisco River	Diversion Consumptive Use													0 0
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